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(98 F.C.C. 2d)

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VOLUME 98 (2d Series)
Pages 1 to 426

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CC Docket No. 83-823

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—Monterey Peninsula TV Cable

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Gen. Docket No. 80-113

Further Notice of Proposed Rulemaking and Notice of Inquiry adopted to amend Part 21 pertaining to Multipoint Distribution Service (MDS) to specify power of MDS stations, to increase required stability of MDS transmitters, and to decrease allowed level of out-of-band emissions from MDS transmitters. Inquiry is also made into feasibility of allowing MDS licensees to use boosters.
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World Administrative Radio Conference
(See: International Telecommunications Union-*World Administrative Radio Conference*)

Confidential Material
Freedom of Information Act, Commercial Financial Information Exemption
Information, Nondisclosure
Rules, Amendment of

> Section 0.459(d) of CFR amended to change standard for according documents confidential treatment. The new test for granting confidentiality is "preponderance of the evidence."
> —*Amendment of Part O*
> Gen. Docket
> No. 83-975

FCC 84-217

BEFORE THE
FEDERAL COMMUNICATIONS COMMISSION
WASHINGTON, D.C. 20554

In the Matter of

Amendment of the Commission's Rules Regarding Confidential Treatment of Information Submitted to the Commission.

Gen. Docket No. 83-975

REPORT AND ORDER

Adopted: May 14, 1984; Released: May 18, 1984

BY THE COMMISSION:

I. Introduction

1. Before the Commission is the *Notice of Proposed Rule Making*, 48 Fed. Reg. 43353 - 43355, published September 23, 1983, and the comments filed in response thereto. In the *Notice*, the Commission sought comment on whether the standard for according confidential treatment to documents submitted to the agency should be revised. Documents that are not deemed to be confidential are generally subject to the mandatory disclosure provisions of the Freedom of Information Act. ("FOIA"). 5 U.S.C. § 552(b)(4).[1]

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[1] Exemption 4 of the FOIA generally allows the withholding of "trade secrets and commercial or financial information obtained from a person and privileged or confidential." 5 U.S.C. § 552(b)(4).

2. The standard that has governed the Commission's evaluation of requests for confidentiality of documents from 1975 to the present is articulated in terms of a "clear and convincing" test. 47 C.F.R. § 0.459(d). The Commission Bureau or Office Chief that receives such requests has delegated authority to make the initial determination regarding confidentiality requests. *Id.* If the submitter is dissatisfied with the Bureau Chief's initial determination, Commission review may be sought. *See* 47 C.F.R. § 1.115.

3. We have carefully reviewed the comments and reply comments filed in this proceeding. The comments indicate that a change in our confidentiality standard is warranted. Consequently, based upon our analysis of the comments and our own independent review of the issues raised in the *Notice*, we have determined to modify our confidentiality standard as set forth below.

II. Comments.

4. Nine comments and four reply comments were received in response to our Notice.[2] All of the participants favored relaxation of the current "clear and convincing" standard now governing the granting of confidential status for documents submitted to the Commission. In addition, the majority of commenters favored the specific proposal in the *Notice* to change the confidentiality test from "clear and convincing" to "preponderance of the evidence."[3]

5. A variety of reasons were advanced in the comments for adopting a standard less rigorous than the clear and convincing test. Initially, it was recognized that a relaxation of the confidentiality standard would encourage a free flow of information to the Commission from those it regulates.[4] Several commenters, including ASC at 3-4; American Telephone and Telegraph Co. ("AT&T") at 2-3; AT&T Reply at 3; CONTEL at 5; GTE at 2; and Pepper at 3 indicated that by easing the confidentiality standard, competitively significant information could be protected from competitors who would seek to exploit such information. A final compelling reason for relaxation of the current standard is that it is more rigorous than the confidentiality standard used by other federal agencies. Comments of AT&T at 4-5; ASC at 4; CONTEL at 1-2; NAB at 3-4; Pepper at 3; and Southwestern at 3.

---

[2] *See* Appendix A* for a list of participants in this proceeding.

[3] Initial comments of American Broadcasting Companies, Inc. ("ABC"); American Satellite Company ("ASC"); Continental Telecom, Inc. ("CONTEL"); GTE Service Corporation ("GTE"); National Radio Broadcasters Association ("NRBA"); Pepper, Hamilton & Scheetz ("Pepper"); and Southwestern Bell Telephone Company ("Southwestern").

[4] Comments of ABC at 2-3 (citing *9 to 5 Organization for Women Office Workers v. Board of Governors*, 551 F. Supp. 1006, 1010 (D. Mass. 1982); CONTEL at 5; GTE at 2; NRBA at 3; National Association of Broadcasters ("NAB") at 2.

6. Both AT&T and NAB endorsed the reexamination of our confidentiality standard. Those commenters, however, suggested that the Commission's proposal did not go far enough. NAB proposed the use of a "substantial evidence" test for granting confidentiality to documents. NAB at 4-5. Although NAB did not elaborate on the specific operation of their proposal, the suggestion was made that the "substantial evidence" test would be similar to the Environmental Protection Agency's requirement of a "satisfactory showing" for non-disclosure.[5]

7. AT&T received support in the reply comments for its proposal.[6] Essentially, AT&T proposed the adoption of a good faith test for granting confidentiality. Specifically, AT&T proposed that the Commission grant confidentiality if a submitter of information makes a good faith request and:

> — indicates the materials are confidential;
>
> — reasonably segregates nonconfidential from confidential material;
>
> — places a proprietary mark on the materials; and
>
> — declares that such information is not publicly available.

AT&T at 7.

8. It is asserted by AT&T that the Commission should grant confidentiality upon a good faith request because the confidential nature of documents changes over time, resources of both the agency and submitter would be conserved and a specific analysis of the confidentiality request need not be made until a FOIA request is received.

9. Moreover, AT&T argues that the "preponderance of the evidence" standard is inappropriate because it presupposes an adversarial context between antagonistic parties. AT&T correctly points out that FOIA confidentiality requests are not generally decided in an adversarial context.

10. As an alternative to its good faith proposal, AT&T proposed the use of a *prima facie* standard, which would require a substantiation at the time of submission of information that in the Commission's judgment would likely withstand a court test. AT&T comments at 9.

III. Analysis and Discussion.

11. On the basis of the record before us, we are convinced that a change in our standard for granting confidential treatment to documents is warranted. It appears that our current standard is unnecessarily high, inconsistent with other agency standards, stricter than the ordinary civil

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[5] NAB at 4. The applicable EPA regulation is codified at 40 C.F.R. § 2.208.

[6] *See* Reply Comments of CONTEL; Pacific Telephone and Telegraph Company and Bell Telephone Company of Nevada (filing jointly); and United Telecommunications, Inc.

standard of proof[7] and may present a disincentive for the free flow of information between industry and government.

12. Based upon the record before us, we believe that the public interest will be served by adopting a "preponderance of the evidence" test for granting confidentiality to documents submitted to the Commission. Although AT&T's proposal for a good faith test is appealing, we find it impractical because of the administrative burden it would place on the Commission. Under AT&T's proposal, the Commission would have to go back to the submitter of information after a FOIA request has been filed and, within the FOIA ten working day time frame,[8] obtain the justification for continuing the confidential status of the information. Based upon our experience in responding to FOIA requests, the ten working day period would provide insufficient time to contact the submitter of information and formulate a reply to the FOIA requestor.

13. Similarly, we find AT&T's alternative proposal — the *prima facie* test — and NAB's substantial evidence test to be impractical. In order to respond to FOIA requests within ten working days,[9] we believe it is necessary to require a preponderance of the evidence showing justifying confidential treatment at the time documents are submitted to the Commission.[10] Consequently, although we recognize that the confidential nature of certain information may change over time, we believe a confidentiality substantiation should be submitted with the information and retained in the files. As we develop experience with the new "preponderance of the evidence" confidentiality standard, we may, of course, revisit the issue to determine if further relaxation of the standard is warranted.

14. Finally, as both ABC and AT&T correctly point out, Rule § 0.459(e) is not at issue in this proceeding. That Rule provides that if information is submitted voluntarily (absent a Commission directive) to the Commission,

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[7] The preponderance of the evidence standard is the traditional standard used in civil and administrative proceedings and is the one contemplated by the Administrative Procedure Act. *Steadman v. SEC*, 450 U.S. 91, 102-04 (1981); *Sea Island Broadcasting Corp. v. FCC*, 627 F.2d 240, 243 (D.C. Cir. 1980).

[8] 5 U.S.C. § 552(a)(6)(A)(i).

[9] An agency may take an additional period of time, not to exceed ten working days, only in unusual circumstances, such as when it is necessary to collect records from field facilities, search for and examine a voluminous amount of material, or consult with another interested agency. 5 U.S.C. § 552(a)(6)(B)(i) - (iii).

[10] The preponderance of evidence test is the relevant burden of proof that the Government must satisfy in 5 U.S.C. § 552(b)(4) litigation to show that the withheld information is indeed confidential. *9 to 5 Organization for Women Office Workers v. Board of Governors*, 551 F. Supp. 1006, 1008 (D. Mass. 1982), *vacated and remanded on other grounds*, 721 F.2d 1 (1983); *Doherty v. FTC*, 1981-1 Trade Cases (CCH) ¶64, 117 (D.D.C. June 24, 1981); *Braintree Elec. Light Dept. v. Dept. of Energy*, 494 F. Supp. 287, 289 (D.D.C. 1980).

the submitter may request that the information be returned if the request for confidentiality is denied. 47 C.F.R. § 0.459(e).

IV. Conclusion.

15. As explained above, we believe that the modification of the confidentiality standard is in the public interest. By adopting the less restrictive "preponderance of the evidence" standard, we hope to encourage the free flow of information to the Commission while providing adequate safeguards to sensitive business data and preventing needless burdens on submitters of information.

16. Regulatory Flexibility Act - Final Analysis. The rule change effected herein is appropriate in view of the record developed in this proceeding. The less restrictive "preponderance of the evidence" standard for granting confidentiality will serve the public interest in a number of beneficial ways. Small business entities should find that this rule change is beneficial because it will make it easier to acquire confidential treatment for information submitted to the Commission.

17. Two comments were received that directly addressed the initial regulatory flexibility analysis. NAB indicated that our initial flexibility analysis may have been flawed for failure to include alternative proposals such as their "substantial evidence" proposal. Another commenter, Southwestern Bell, indicated that our regulatory flexibility analysis was adequate. In any event, three alternatives to our initial proposal have been considered and evaluated. We have declined to implement those proposed alternatives because we consider them unworkable in view of the relatively short response deadlines imposed by the FOIA.

18. Accordingly, in view of the foregoing and pursuant to the authority contained in 47 U.S.C. §§ 154(i), 154(j), and 303(r), and 5 U.S.C. § 552, IT IS ORDERED that the action taken herein is effective June 25, 1984.

19. Contact Randy W. Thomas, Office of General Counsel, (202) 632-6990 for further information regarding this proceeding.

FEDERAL COMMUNICATIONS COMMISSION

WILLIAM J. TRICARICO, *Secretary*

*Appendix A-may be seen in the FCC Dockets Branch, 1919 M Street, N.W. Washington, D.C. 20554.

APPENDIX B Rule Revision

Part O — Commission Organization

Subpart C — General Information

1. In Section 0.459, paragraph (d) is revised to read as follows:.

§ 0.459 Requests that materials or information submitted to the Commission be withheld from public inspection.

* * * *

(d) Requests which comply with the requirements of paragraphs (a) and (b) of this section will be acted on by the appropriate Bureau or Office Chief, who is directed to grant the request if it presents by a preponderance of the evidence a case for non-disclosure consistent with the provisions of the Freedom of Information Act, 5 U.S.C. § 552. * * *

Multipoint Distribution Service
Notice of Inquiry
Rulemaking, Notice of Proposed
Transmitter, Operating Power

Further Notice of Proposed Rulemaking and Notice of Inquiry adopted to amend Part 21 pertaining to Multipoint Distribution Service (MDS) to specify power of MDS stations, to increase required stability of MDS transmitters, and to decrease allowed level of out-of-band emissions from MDS transmitters. Inquiry is also made into feasibility of allowing MDS licensees to use boosters. —*Amendment of Part 21*

Gen. Docket No. 80-113

FCC 84-176

BEFORE THE

FEDERAL COMMUNICATIONS COMMISSION

WASHINGTON, D.C. 20554

In the Matter of	
Amendment of Parts 21, 74 and 94 of the Commission Rules and Regulations with regard to technical requirements applicable to the Multipoint Distribution Service, the Instructional Television Fixed Service and the Private Operational-Fixed Microwave Service (OFS).	General Docket No. 80-113
In the Matter of	
Amendment of Part 21 of the Commission's Rules to Measure Authorized Power in Terms of Effective Radiated Power and to Increase Such Authorized Power to 1,000 Watts.	RM-3221
In the Matter of	
Authorizing Repeater Operation in the Multipoint Distribution Service.	RM-3819

FURTHER NOTICE OF PROPOSED RULEMAKING AND NOTICE OF INQUIRY

Adopted: April 26, 1984; Released: June 14, 1984

BY THE COMMISSION:

1. Notice is hereby given that the Commission is proposing to amend Part 21 of its rules that pertains to the Multipoint Distribution Service (MDS) to specify the power of MDS stations in terms of equivalent isotropically radiated power, to increase the required stability of MDS transmitters and to decrease the allowed level of out-of-band emissions from MDS transmitters. Inquiry is also made into the feasibility of allowing MDS licensees to use boosters (repeaters).

PROPOSED RULEMAKING

I. Background

2. On March 19, 1980, the Commission adopted a Notice of Inquiry and Proposed Rulemaking initiating this proceeding.[1] The rules proposed therein concerned the establishment of a protected service area for MDS stations, a definition of what constitutes cochannel and adjacent channel interference and the adoption of receiving antenna standards to be used to determine the existence of interference. We are, in a separate action today, adopting final rules concerning these matters.[2]

3. In the *Notice,* we also initiated inquiries concerning other matters that relate to the operation of MDS transmitters. This included spuriously generated interference, transmitter power and its relationship to service area limitations, and transmitter stability. As we noted in the *1st Report,* we did not receive many substantive comments in response to these specific questions.[3] However, we did receive many comments concerning the more general matter of the minimum power required for the successful operation of an MDS station.[4] We also have pending before us the above captioned Petitions filed by Microband Corporation of America (RM-3221) and Multipoint Communications Corporation (RM-3819) that bear on transmitter operations. The Petitions request that we amend our rules to allow the use of MDS repeater stations (RM-3819), to express the power of MDS stations in terms of equivalent isotropically radiated power (RM-3221) and to set the authorized equivalent isotropically radiated power at 1,000 watts (RM-3221).

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[1] Notice of Inquiry and Proposed Rulemaking, General Docket No. 80-113, FCC 80-137, 45 Fed. Reg. 29,350 (1980)(hereinafter cited as *Notice*).

[2] First Report and Order, General Docket No. 80-113, ________F.C.C.2d ________, FCC ________ (hereinafter cited as *1st Report*).

[3] *Id.* at para. 144.

[4] *Id.* at para. 62.

4. We are making the proposals contained herein concerning these related matters in response to the petitions and the comments filed in response to the rulemaking petitions and the comments filed in response to the *Notice.* We seek comment on our analysis, and invite specific alternative language to address the problems we have described.

II. Discussion

A. Equivalent Isotropically Radiated Power (EIRP)[5]

5. At present, the maximum power output of MDS stations is specified in terms of the transmitter power output. Section 21.904(a) of the rules, 47 C.F.R. § 21.904(a), limits the maximum power to 10 watts. Subsection (b) of the same section provides for the authorization of up to 100 watts if it can be shown that the additional power is required "... to provide adequate, reliable service to a reasonable service area. . . ." The ability of a station to serve a particular receiver site with fixed receiver characteristics is determined in large measure by the amount of power the station radiates in the direction of the receive site. This quantity, which is called the effective radiated power (ERP), or EIRP[6] of the station, is determined by the station transmitter power, the gain of the transmitting antenna in the relevant direction and the amount of loss between the transmitter output and the antenna input (line loss). Since the gain of the antenna is a function of direction, the EIRP will also be a function of direction. Generally when reference is made to the EIRP of a station, the reference

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[5] NAB at 4. The applicable EPA regulation is codified at 40 C.F.R. § 2.208.

[6] The term effective radiated power is defined in Section 21.2 of the rules, 47 C.F.R. § 21.2 as follows:

> The product of the antenna power input and the antenna power gain. This product should be expressed in watts. (If specified for a particular direction, effective radiated power is based on the antenna power gain in that direction only.)

Antenna power gain is defined in the same section as follows:

> The square of the ratio of the root-mean-square free space field intensity produced at one mile in the horizontal plane, in millivolts per meter for one kilowatt antenna input power to 137.6 mV/m. This ratio should be expressed in decibels (dB). (If specified for a particular direction, antenna power gain is based on the field strength in that direction only.)

The latter definition is the antenna gain relative to a half-wave dipole antenna. This is if 1 kilowatt of power were radiated by a half-wave dipole, the field strength at 1 mile would be 137 mV/m. If the same power were radiated uniformly in all directions (isotropically), the field strength at 1 mile would be 107.6 mV/m. Thus, the half-wave dipole antenna has 2.13 dB of gain relative to an isotropic radiator. ($10\log(137.6/107.6)^2 = 2.13$ dB). *See* S. Ramo, J. Whinnery, and T. Van Duzer, Fields and Waves in Communications Electronics, 642-650 (1965). We used EIRP in the *Notice* because most MDS antenna gains are specified relative to an isotropic radiator. As shown above, a gain specified in this manner would be 2.13 dB higher than the gain specified relative to half-wave dipole. Thus for the same antenna input power, the ERP and the EIRP differ by the same 2.13 dB.

is to the maximum EIRP or the EIRP in the direction of maximum antenna gain.

6. Because our present rule addresses only one element of three that relate to a station's ability to serve a particular receive site, it is not an accurate measure of the ability of a particular station to serve points within the service area. For example, we have observed large variations in the amount of line loss reported by MDS applicants. This may result from either variations in the transmitter-antenna separation, from variations in the type of transmission line being used or both. The two types of transmission line used to connect transmitters to antennas in these frequency bands are, coaxial cable and elliptical waveguide. Typically the loss in coaxial cable is 4 dB per 100 feet of ½ inch diameter foam coaxial cable and 1.1 db per 100 feet of 1-⅝ diameter air filled coaxial cable; while the loss per 100 feet of elliptical waveguide is 0.34 dB.[7] The waveguide has the disadvantages that it is more expensive, heavier, and produces greater windloading (wind-resistance, because it is larger) than coaxial cable. Whatever the cause, the result is that stations with identical transmitters frequently have very different EIRPs. This means the operator of a station in which the transmitter must be located some distance from the antenna must either purchase the more expensive waveguide transmission line or operate with less EIRP. In some localities the antenna support structure cannot support the additional weight and windloading of the waveguide thus eliminating the waveguide option. In other locations, the distance is so great that even using waveguide would not result in a line loss which is as low as that available to other operators.

7. For these reasons, we solicited comments on specifying the power limitations on MDS stations in terms of EIRP rather than transmitter power. We did not receive much comment in response. The National Telecommunication and Information Administration (NTIA) gave strong support to the idea and suggested we adopt an EIRP standard for services in which high gain transmitting antennas are used.[8]

8. In Petition RM-3221, Microband requested that we express the power output of MDS stations in terms of effective radiated power.[9] In its Petition, Microband noted that the Commission had considered using this method when the MDS rules were originally adopted but had rejected it because it believed using transmitter power was "more practical." *Multipoint Distribution Service*, 45 F.C.C.2d 616, 623 n. 13 (1974). The

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[7] Petition for Rulemaking, RM-3221, Microband Corporation of America, Engineering Attachment, at 1 (hereinafter cited as Microband Petition).

[8] Comments of the National Telecommunications and Information Administration, General Docket No. 80-113, 14.

[9] Microband used the term effective radiated power but it actually used the equivalent isotropically radiated power in making its calculations.

practical difficulties referred to were highlighted in the Reply Comment filed by Visions Ltd. in response to the Microband Petition. Visions analyzed four cases to support its contention that using an EIRP standard was not practical.[10] The first case was that submitted by Microband in support of its Petition. It showed that the EIRP of a typical MDS station was 1,000 watts. The next case was that of Visions' common carrier, MDS System, Inc. It has an EIRP of 2238.7 watts. The other two cases were hypothetical stations. One had an EIRP of 3630.8 watts and the other had an EIRP of 501.2 watts. The variations resulted from a combination of differences in line losses and antenna gains. As noted above, the reason we proposed to use EIRP in place of transmitter power was to compensate for the differences in line losses among MDS stations.

9. The variations in antenna gains present more complex problems. Many MDS stations use transmitting antennas with similar characteristics. These antennas usually give omnidirectional coverage in the horizontal plane and have a 4° beamwidth in the vertical plane. Such antennas usually have a gain of approximately 13 dB (above isotropic). In some instances, cardioid antennas are used that have vertical profiles similar to the omnidirectional antenna but that cover only 180° of the horizontal plane. Two of these antennas are sometimes used in a "back-to-back" configuration to give the desired 360° coverage. The gain of each antenna is 16 dB but since the power must be split between the two antennas the resulting EIRP is the same. Some stations such as MDS Systems, Inc. use only a single cardioid antenna. If such a station were subject to the same EIRP limitation as a station using an omnidirectional antenna and if each station had the same line loss, the station using the single cardioid would have to reduce its transmitter power by 3 dB to meet the EIRP limitation.

10. This problem can be eliminated by allowing a station that uses a non-omnidirectional transmitting antenna to increase its EIRP in the direction of maximum gain in accordance with the following formula:

$$\mathrm{EIRP}_{max} = \mathrm{EIRP}_{omni} + 10 \log (360/\mathrm{BW})$$

in which EIRP_{max} = EIRP in the direction of maximum gain in dBW

EIRP_{omni} = the EIRP of a station that uses an omni-directional transmitting antenna in dBW

BW = the total horizontal plane beamwidth of the station's transmitting antenna system measured at the one half-power points.

Proceeding in this manner allows stations using non-omnidirectional transmitters to use the same transmitter power as stations using omnidirectional antennas and still allows compensation for variations in line loss. We stress that stations using more than one antenna in their non-omnidirectional antenna system must use the total beamwidth of all antennas in calculating the allowed EIRP.

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[10] Reply Comments of Visions Ltd., RM-3221, Attachment.

11. The amount of transmitter power and hence the EIRP required to provide adequate signal levels in the MDS has been a matter of some controversy. In formulating the adjacent and cochannel interference rules proposed in the *Notice,* we assumed the EIRP was 23 dBW (200 watts). This EIRP was based on the combination of a 10 watt transmitter (10 dBW) and a 13 dBW gain antenna. We assumed no line loss between the transmitter and the antenna. In using this EIRP, we noted that the existing MDS rules allow authorizations of up to 100 watts of power in those cases where it can be shown that the requested authorization is the minimum needed to supply reliable service to a reasonable service area. We also suggested that since the rules did not contain a definition of terms "reliable signal" or "reasonable service area", it may have been possible that we granted more 100 watt authorizations than would be allowed under the service area definitions proposed in the *Notice.*[11]

12. There are approximately 130 MDS stations that have customers for their service; of these approximately 95 have been authorized to use a 100 watt transmitter. Thus, it can be seen that what is nominally a 10 watt service is in reality a 100 watt service. The combination of a 100 watt (20 dBW) transmitter and a 13 dB gain antenna results in an EIRP of 33 dBW or 2000 watts.

13. Although we did not solicit comments on transmitter power, virtually every member of the MDS community filing comments in response to the *Notice* claimed that 100 watts was the minimum required to provide service within 15 miles of the transmitter. One licensee, Contemporary Communications, suggested that what was really required was 1,000 or even 10,000 watts.[12] The Corporation for Public Broadcasting (CPB) in its reply comments contested the claims made by the MDS industry and contended that most of the signal losses reported by MDS licensees were the result of obstructions and that "signal losses caused by . . . obstructions cannot usually be overcome by any realistic increase in EIRP." CPB further claimed that a single "knife edge" obstruction between a transmitter and a receiver at these frequencies would case 25 dB of additional signal attenuation between the transmitter and receiver.[13] This is clearly more than would be compensated for by a 10 dB increase in transmitter power from 10 watts to 100 watts. We agree with CPB. On the other hand, we note, as they also pointed out, that many

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[11] *Notice, supra* note 1, note 7.

[12] Comments of Contemporary Communication Corporation, General Docket No. 80-113, 2 (September 8, 1980).

[13] Reply Comments of the Corporation for Public Broadcasting, General Docket No. 80-113, Engineering Statement at 6.

obstructions are not the "knife edge" variety. As Microband noted in its Petition:[14]

> Frequency inversions, storms, natural and man made obstacles, even the leaves on trees, have all too often acted to severely attenuate the MDS signal to the point that we have been unable to provide the type of service demanded despite our best technical and engineering efforts.

The amount of attenuation caused by foliage is generally claimed to be around 10 dB.[15]

14. There is no doubt that any 10 dB increase in transmitter power — whether from 10 watts to 100 watts or from 100 watts to 1,000 watts — will increase the number of receiver sites at which an acceptable signal level is available. The difficulty is that any increase in transmitter power also increases the possibility that harmful cochannel interference will be experienced by other licensees in adjacent service areas. Thus, the task is to balance the requirement for an adequate level of power to serve a station's service area with the requirement to keep adjacent service areas as free of cochannel interference as possible. A 10 dB increase in transmitter power will increase the distance at which a potentially interfering signal will exist by a factor of 3.16. That is, if a potentially interfering signal existed 20 miles from the transmitter, increasing the transmitter power by 10 dB would make this same signal available at 63.2 miles from the transmitter. This assumes, of course, that the latter location was still within the line of sight of the transmitter.

15. It is much more difficult to determine the marginal increase in the percentage of receiver sites that will have an adequate signal level available for each 10 dB increase in transmitter power. In the *Notice*, we claimed that a 10 watt transmitter with a 13 dB gain antenna will supply an adequate signal to cover a 15 mile radius service area. As was pointed out above, all of the MDS operators who commented on this issue claimed that 100 watts was the minimum power needed to provide such service. This discrepancy is most likely explained by the fact that our calculation was based on the assumption that there was a clear line-of-sight path between the receiver and the transmitter. Any variations from this condition will, of course, require more transmitter power to get the same performance. For example, one major problem for MDS operators is the approximately 10 dB of signal attenuation produced by foliage. We have routinely authorized a 10 dB increase to 100 watts needed to overcome this and other forms of signal loss.

16. The only data presented in this proceeding concerning the effect of increasing the authorized power from 100 watts to 1,000 watts were

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[14] Microband Petition, *supra* note 6, at 4.

[15] Reply Comments of Microband Corporation of America, General Docket No. 80-113, Exhibit A, at 4.

submitted by Microband and were based on information collected by its customer in Washington, D.C., Marquee Television Network.[16] The data presented were the number of attempted service installations and the number of successful service installations as a function of distance from the transmitter. Marquee also estimated the number of unsuccessful installations that would have been successful if the transmitter power were increased by 10 dB. The data were presented for each mile out to 7 miles. All of the data for locations more than 7 miles from the transmitter were presented together. The data presented are as follows:

Distance in Miles	*Attempts*	*Successes*	*% Successes*	*Successes Added by 10dB Increase*	*Successes Rate with 10dB Increase*
0-1	126	114	90.5%	6	95.2%
1-2	186	125	67.2%	26	81.2%
2-3	166	84	50.6%	27	66.9%
3-4	137	86	62.8%	25	81.0%
4-5	193	128	66.3%	33	83.4%
5-6	175	104	59.4%	40	82.3%
6-7	230	96	41.7%	48	62.6%
7*	381	111	29.1%	113	58.8%

*This data was treated as though the area involved was between 7 and 30 miles.

Microband claims that these results show that an increase in authorized power to 1,000 watts would allow Marquee to serve an additional 269,100 homes.[17] The estimate of 269,100 was made by multiplying the increase in the success rates by the estimated number of homes in each area.

17. There are two reasons why we do not believe the data presented support this conclusion. First, the installations were apparently only attempted in areas where there was a chance that a successful installation would occur. This means that in areas where natural obstructions block most locations, no installations were attempted. We believe that homes located in such areas should not be included in the total number of possible homes. More important is the fact that the same percentage was applied to the whole area between 7 and 30 miles. This is the area in which most of the additional homes claimed by Microband are located (232,000 of 269,100 were located beyond 7 miles). The estimate was made assuming the same percentage increase would occur between 29 and 30 miles as would occur between 7 and 8 miles. We do not believe this is a reasonable assumption. Of course, because of the manner in which the data is presented, we have no way of knowing where the 111 original successes and 113 additional successes were located within the 7-30 mile area. But it is not unreasonable to assume that the number of successes in the 7-8 mile area would not differ greatly from the number in 6-7 mile area. Because

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[16] *Id.*, at 5.

[17] Reply Comment of Microband, *supra* note 13, at 4.

there were 96 successes in the 6-7 mile area, it is reasonable to assume that many of the 111 successes listed for greater than 7 miles were in the 7-8 mile area. Indeed, it is most likely that most of the 113 additional successes listed for the greater than 7 mile area were also located within the 7 to 8, 8 to 9, and 9 to 10 mile areas rather than in the 29 to 30 mile area. We recognize that it may be possible to serve a structure such as a high rise apartment building located 30 miles from the transmitter if there is an unobstructed line-of-sight path between the roof of the building and the transmitter and if a high gain receiving antenna is used. However, we do not believe it is reasonable to assume, as Microband did in arriving at its conclusion, that 58.8% of the homes located between 29 and 30 miles from the transmitter could be served if the transmitter power were increased to 1,000 watts. In fact, Microband did not submit any evidence that showed that any homes located between 29 and 30 miles away can be served by its 100 watt transmitter.

18. We believe that the data presented show that increasing the power beyond 100 watts will, as expected, provide a small increase in the percentage of homes that can be served near the transmitter where a large percentage of the homes already receive a good signal, and a larger increase in the number of homes that could be served at 8, 9, and 10 miles from the transmitter where many more homes receive a marginal or poorer signal. On the other hand, while not in agreement with the numbers, we do agree with the conclusion reached by Microband when it stated:[18]

> . . . while an MDS station may or may not be able to provide service out to 40 miles, several stations located within 50, 60 or even 80 miles of existing transmitters have, in fact, caused disruptive interference to areas well within 25 miles of a licensed MDS station. In short, the distance from a transmitter which can experience interference is not the same thing as the distance which can be served.

19. We are convinced that an increase in EIRP to 2,000 watts is justified by the need to provide reliable service to a reasonable percentage of the protected service area on a year round basis. We base this conclusion on the filings made in the proceeding and in our experience in processing applications for 100 watt service. We are not convinced, however, that any increase in EIRP beyond 2,000 watts is justified. We believe that any marginal increase in the number of sites which could be served would not justify the large increase in potential interference that would result.

20. For these reasons, we are proposing to change the rules to specify the power limit on MDS stations in terms of EIRP and to specify the EIRP limit as 2,000 watts or 33 dBW for stations using omnidirectional antennas. This is based on a station having a 100 watt transmitter, a 13 dB

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[18] *Id.*, at 12.

gain antenna and no line loss. We believe that this is representative of the manner in which the most successful MDS stations are now operated. We do not believe any increase in EIRP beyond this level is justified for omnidirectional stations so we are proposing to eliminate that provision of the rules which provides for exception to the power limitation. This will eliminate the administration delays and paperwork burdens that result from the existing 100 watt authorization procedure.

21. For stations using non-omnidirectional antennas, we are proposing to limit the EIRP in accordance with the formula described in paragraph 10. We stress that the EIRPs we are proposing today are maximums. All applicants are still expected to comply with Section 21.107 of the Rules, 47 C.F.R. § 21.107, which provides that transmitter power may be ordered to be reduced if harmful interference is being caused.

22. We ask those commenting on this proposed rule change to address the following issues: (1) What will be the effect of increasing the EIRP of existing stations? In particular, we are concerned about the situation where existing stations already radiating this power are located near cochannel 10 watt stations. If an existing 10 watt station were to raise its power level by 10 dB, there would be an increased possibility of cochannel interference. (2) What will be the effect of this rule change on adjacent channel stations that are operating at the lower power level in the same area? (3) Finally, we ask if the same result as is reached by the proposed rule change could not be better reached by merely specifying the power of MDS stations at the input to the transmitting antenna and limiting such power to 100 watts?

23. The proposed new Section 21.904 is contained in the Appendix.

B. Frequency Tolerance

24. Sections 21.908(c) and 21.101(a) require that MDS stations maintain the frequency of their visual carriers within 0.001% of its nominal value. 47 C.F.R. §§ 21.908(c), 21.101(a). This means that an MDS station operating on channel 1, channel 2 or channel 2A must maintain its carrier frequency within ± 21.5 kHz of its nominal value. Broadcast television stations are required to maintain their visual carriers within ± 1 kHz of their nominal frequency. 47 C.F.R. § 73.687(c)(1). Both MDS and broadcast television stations are required to keep the frequency of the aural carrier 4.5 MHz ± 1 kHz above the visual carrier. 47 C.F.R. §§ 21.908(c) and 73.687(c)(1).

25. In the *Notice*, we suggested that it might be desirable to tighten the frequency tolerance to allow for the use of frequency offsets to reduce cochannel interference.[19] Frequency stability similar to that used by broadcast television transmitters is necessary to make frequency

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[19] *Notice*, *supra* note 1, at para. 54.

offset techniques effective. Because the required stability is ± 1 kHz, an increase of more than an order of magnitude in the stability of MDS transmitters would be required. Frequency offset is now being used in Los Angeles by Microband; thus, we know that attaining such stabilities is technically feasible. The frequency stability of the oscillators used by stations KFF79 and KFI79 is 1×10^{-8}.[20] This is three orders of magnitude better than the existing MDS requirement (.001% corresponds to 1×10^{-5}). The cost of implementing this change to the transmitters was approximately $2,000 per transmitter.[21] Because we believe that the use of frequency offset techniques will eliminate many cases of cochannel interference, we are proposing to require that all new MDS stations install transmitters that are capable of maintaining the visual carriers within ± 1 kHz of the assigned frequency.

26. We are aware that there may be manufacturers with transmitters in their inventories that do not meet this specification. For this reason, we are requesting that equipment manufacturers and other interested parties advise when the proposed rule should become effective if it is adopted. We also request comment on the applicability of the proposed rule to transmitters already in service. We are especially interested in the cost and complexity of modifying existing equipment to bring it into compliance with the proposed rule.

C. Out-of-Band Emissions

27. In the *1st Report,* we concluded that adjacent channel operation of MDS stations would be easier if we required all emissions from MDS transmitters appearing more than 3 MHz above or below the band edges to be attenuated at least 60 dB below the peak visual output power of the transmitter.[22] Existing Section 21.908(b), 47 C.F.R. § 21.908(b), requires that such emissions be attenuated at least 30 dB for transmitters rated at less than 10 watts and 40 dB for all other transmitters.

28. Because the successful operation of the multichannel MDS service we recently authorized requires this performance, we are proposing to amend Section 21.908(b) to require all MDS transmitters to meet the 60 dB attenuation requirement. Here, as with frequency tolerance, we ask equipment manufacturers to advise us when they believe we should make the change effective if we do adopt it. We also request comment on the applicability of the proposed rule to existing equipment. Again we are especially interested in the cost and complexity of bringing existing into compliance with the proposed rule.

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[20] Letter from Microband to Domestic Facilities Division, Federal Communications Commission, May 10, 1982, Station File KFF79.

[21] *Id.*

[22] *1st Report, supra* note 2, at paras. 128-130.

NOTICE OF INQUIRY

I. Background

29. On November 5, 1980, Multipoint Communications Corporation (Multipoint) filed a Petition for Rulemaking in which it petitioned "the Commission to amend its rules, to the extent such an amendment may be required, to permit operation of low power repeater stations in the Multipoint Distribution Service ("MDS")."[23] Multipoint suggested that the repeaters be authorized subject to the following conditions:[24]

> (1) Repeaters would only be authorized to the licensees of primary MDS stations and only for use in the authorized service areas of those primary stations;
>
> (2) Output power of the MDS repeaters would be limited to a maximum of .5 watts;
>
> (3) The repeaters would have to be so directed and situated that their interference contour would extend no further than the contour of the primary MDS station;
>
> (4) As few or as many repeater stations as would be technically feasible could be employed in each primary service area;
>
> (5) Repeater stations would not need prior Commission approval to commence operation. Proposed operators would be required to notify the Commission of the specifics of their proposed operation in a manner similar to that applicable to cable television registration. The concept of non-licensed, subsidiary authorization is not new to the Commission. The Commission has, for example, recently terminated the individual licensing of mobile radios of the DPLMRS. These radio stations actively radiate energy, but, because they operate in conjunction with and under the umbrella of a licensed base station, the Commission has determined that separate individual licenses are not required. A similar approach might work here. Alternatively, licensing of repeater stations could be handled in a manner similar to that proposed for MDS return channels in Docket 80-112.
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> (6) The repeaters would operate in an unattended mode, subject to the ability of local maintenance crews to quickly be apprised of and to correct any malfunction. In many respects, MDS repeater service can be compared to TV broadcast booster stations. (See § 74.733 of the Commission's rules).
>
> (7) The repeaters are envisioned as not extending the service area of primary MDS stations but, rather, filling in the holes of their existing service areas. However, it is certainly conceivable the in some instances, particularly in rural areas, extension of primary MDS service in order to reach isolated service points lying on the fringe of the service area may be desirable. In such instances, repeater operation could be authorized subject to the proviso that such operation would have to be terminated upon the commencement of operation of the potentially interfering primary MDS station.

(Footnotes omitted.)

30. Comments in support of Multipoint's Petition were filed by Microband Corporation of America and the National Association of MDS

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[23] Petition for Rulemaking RM-3819, Multipoint Communications Corporation, 1 (November 5, 1980).

[24] *Id.* at 2-5.

Service Companies (NAMSCO). Comments opposing the Petition were filed by the National Association of Public Television Stations (NAPTS). The American Telephone and Telegraph Company (AT&T) also filed comments. Multipoint filed a reply to the NAPTS opposition and NAPTS subsequently withdrew its opposition.

31. NIAPTS originally objected to the Petition because of its belief that Multipoint was proposing a translating repeater. That is, a repeater that receives a signal on one frequency and retransmits it on a different frequency. In its Reply, Multipoint stated that what it was proposing was the use of non-translating repeater. That is, an active device that receives the signal, amplifies it and retransmits it on the same frequency. On learning of the true nature of Multipoint's proposal NAPTS withdrew its opposition.

32. AT&T was concerned with the possible interference the proposed repeaters might cause to licensees in the Point-to-Point Microwave Radio Service that share the 2160-2162 MHz with MDS channel 2. AT&T suggested that the best way to avoid such problem was to have the Commission issue a Public Notice of any proposed MDS operation and give interested parties 30 days to review the proposal.

33. Both Microband and NAMSCO expressed support for the repeater concept. Microband expressed some doubt concerning adequacy of the record in support of Multipoint's ½ watt recommendation. Microband also was concerned about the possibility that cochannel or adjacent channel interference might be caused by repeaters.

II. Discussion

34. At the outset, we believe that some clarification in terminology is necessary. As discussed above, NAPTS filed its opposition because it believed Multipoint was proposing the use of frequency translating repeaters. In a recent action, we defined an active repeater as a device that amplified, redirected and transmitted on a *different* frequency the signal received. We used the term booster to describe a device that used the same frequency for both reception and retransmission and simply amplified the received signal.[25] Thus, we believe that the term that should be applied to the device Multipoint proposed is booster rather than repeater. The term booster may also be applied to a passive device. That is a device that merely redirects the signal it receives but does not amplify it.

35. After reviewing Multipoint's petition and the comments filed in response thereto, we have concluded that the use of boosters in the MDS could serve a very useful function. The problem of obstructed receiver locations has been a continuing source of difficulty for MDS licensees. We

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[25] Report and Order, BC Docket No. 82-20, RM-2500, ________ F.C.C. 2d ________, FCC 84-40, para. 3 (released February 17, 1984).

have authorized the use of two boosters on a temporary basis in Chicago.[26] These boosters are being used to get the MDS signal over buildings that are obstructing critical receiver locations. They have apparently been operated without causing any interference. We believe that other licensees could make effective use of these devices to overcome the effects of obstructions in their protected service area.

36. Although we believe that the use of such devices may be in the public interest, we do not believe that we have an adequate record upon which to base proposed rules. We are, therefore, requesting that interested parties file comments that address the following specific questions.

1. What is the maximum EIRP that a booster should be allowed to radiate?
2. Should we limit the location of the boosters to be no closer to the boundary of the protected service area than 5 miles?
3. What should be the role of boosters in those cases where the protected service area boundary is determined by radio horizon rather than 15 miles?
4. Should we require a separate application for each booster and place each such application on public notice?
5. What will be the effect of boosters on adjacent channel operations in the same city?
6. Should we require that booster equipment be subject to our authorization procedures (type acceptance or notification)? *See* Report and Order, General Docket No. 83-10, 96 F.C.C. 2d 948, FCC 84-21, Released January 26, 1984.

We do not suggest that this list is exhaustive but merely representative of some of the major issues we believe should be addressed before we propose specific booster rules. We request that interested parties file comments on any other aspect of booster use by MDS licensees they deem relevant.

Regulatory Flexibility Act Initial Analysis

I. **Reason for Action.** This action is being taken in response to petitions for rulemaking filed by Microband Corporation of America and Multipoint Communications Corporation and in response to comments filed in response to our inquiry into these matters. On the basis of the record in these proceedings, we have concluded that the rules proposed herein may result in the elimination of the unnecessary filing of requests for increased power authorization by MDS licensees, provide a higher quality of service to the public and eliminate potential adjacent channel and cochannel interference problem in this service. In addition, we believe that use of boosters will provide service to areas not now being served.

II. **Objective.** The objective of this action is to make more efficient use of the spectrum allotted to this service.

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[26] *See* station files WHE 983 and WFY 953.

III. **Legal Basis.** Action is proposed in accordance with Sections 303(e) and 303(f) of the Communications Act of 1934, as amended, that authorizes the Commission to regulate the apparatus used by radio stations to make such regulations as may be necessary to prevent interference between stations.

IV. **Description, Potential Impact and Number of Small Entities Effected.** The proposed rules would affect MDS licensees and equipment manufacturers. The licensees would benefit from the simplified application procedures and by having facilities that were less likely to cause or experience harmful interference. Licensees could also serve a larger segment of the public and hence receive more revenue from the operation of their stations. The cost of new MDS transmitters may be increased by the proposed rules. Equipment manufacturers would be required to produce a higher quality transmitter. The action could effect as many as 1,000 MDS licensees and as many as 10 equipment manufacturers.

V. **Recording, Record Keeping and Other Compliance Requirements.** Manufacturers would be required to have new transmitters type accepted.

VI. **Federal Rules which Overlap, Duplicate or Conflict with this Rule.** None.

VII. **Any Significant Alternative Minimize Impact on Small Entities and Consistent with the Stated Objective.** None.

Conclusion

37. Accordingly, pursuant to the authority contained in Sections 4(i) and 303 of the Communications Act of 1934, as amended, it is proposed that Part 21 of the Commission's rules be amended as set forth in the attached Appendix.

38. Pursuant to procedures set out in § 1.415 of the Commission's rules, interested parties may file comments on or before August 6, 1984 and reply comments on or before September 5, 1984. All relevant and timely comments will be considered by the Commission before final action is taken in this proceeding. In reaching its decision, the Commission may take into consideration information and ideas not contained in the comments, provided that such information is placed in the public file, and provided that the fact of the Commission's reliance on such information is noted in the Report and Order.

39. In accordance with the provisions of § 1.419 of the rules, formal participants shall file an original and 5 copies of their comments and other materials. Participants wishing each Commissioner to have a personal copy of their comments should file an original and 11 copies. Members of the general public who wish to express their interest by participating informally may do so by submitting 1 copy. All comments are given the same consideration, regardless of the number of copies submitted. All documents will be available for public inspection during regular business hours in the Commission's Public Reference Room at its headquarters,

Room 239, 1919 M Street, N.W., Washington, D.C. For general information on how to file comments, please contact the FCC Consumer Assistance and Information Division at (202) 632-7000.

40. For purposes of this non-restricted notice and comment rulemaking proceeding, members of the public are advised that *ex parte* contacts are permitted from the time the Commission adopts a Notice of Proposed Rulemaking until the time a Public Notice is issued stating that a substantive disposition of the matter is to be considered at a forthcoming meeting or until a final Order disposing of the matter is adopted by the Commission, whichever is earlier. In general, an *ex parte* presentation is any written or oral communication (other than formal written comments/pleadings and formal oral arguments) between a person outside the Commission and a Commissioner or a member of the Commission's staff that addresses the merits of the proceeding. Any person who submits a written *ex parte* presentation must serve a copy of that presentation on the Commission's Secretary for inclusion in the public file. Any person who makes an oral *ex parte* presentation addressing matters not fully covered in any previously filed written comments for the proceeding must prepare a written summary of that presentation on the day of oral presentation, and serve it on the Commission's Secretary for inclusion in the public file, with a copy to the Commission official receiving the oral presentation. Each *ex parte* presentation described above must state on its face that the Secretary has been served, and must also state by docket number the proceeding to which it relates. See generally, § 1.1231 of the Commission's rules, 47 C.F.R. § 1.231.

41. For further information regarding this proceeding, contact Kevin J. Kelley, Common Carrier Bureau, (202) 634-1860.

FEDERAL COMMUNICATIONS COMMISSION
WILLIAM J. TRICARICO, *Secretary*

Appendix A

It is proposed that Parts 21 of Chapter I of Title 47 of the Code of Federal Regulations be amended as follows:

1. Section 21.2 is amended by adding the following definition.

§ 21.2 Definitions.

* * * * *

Equivalent Isotropically Radiated Power (EIRP). The product of the antenna input power and the antenna power gain relative to an isotropic radiator. This product may be expressed in watts or dB above 1 watt (dBW).

* * * * *

2. Section 21.107 is amended by revising footnote 2 of paragraph (b) to read as follows:

§ 21.107 Transmitter Power.

* * * * *

(b)***

[2]In the bands, 5.925-6.425 MHz and 27.500-29.500 MHz the maximum equivalent isotropically radiated power of the transmitter and associated antenna of a station in the fixed service shall not exceed +55 dBW. This limitation is necessary to minimize the probability of harmful interference to reception in this band by space stations in the fixed satellite service. In the bands 2150-2162 MHz and 2596-2644 MHz the maximum transmitter power shall be no greater than is required to comply with the Equivalent Isotropically Radiated Power limitations contained in § 21.904.

* * * * *

3. Section 21.904 is amended by revising paragraphs (a) and (b) to read as follows:

§ 21.904 Transmitter Power.

(a) The equivalent isotropically radiated power of a transmitting station in this service shall not exceed 2,000 watts (33 dBW) except as provided in paragraph (b) of this section.

(b) The maximum equivalent isotropically radiated power in dBW of a station that uses a transmitting antenna with a non-omnidirectional horizontal plane radiation pattern shall be determined by the following formula:

$$\mathrm{EIRP}_{\max} = 33 + 10 \log 360/\mathrm{BW}$$

in which BW is the total horizontal plane beamwidth of the transmitting antenna system in degrees, measured at the half-power points.

* * * * *

4. Section 21.908 is amended by revising paragraphs (a) through (e) to read as follows:

§ 21.908 Television Transmitting Equipment.

(a) Except as otherwise provided in this section, the requirements of paragraphs (a), (b), (c), (d), and (e) of § 73.687 of this chapter shall apply to stations in this service transmitting standard television signals.

(b) The average power of radio frequency harmonics of the visual and aural carriers, measured at the output terminals of the transmitter, shall be attenuated no less than sixty (60) decibels below the peak visual output power within the assigned channel. All other emissions appearing on frequencies more than fifty (50) percent of the authorized bandwidth above or below the upper and lower edges, respectively, of the assigned channel shall be attenuated no less than sixty (60) decibels. However, should interference occur as the result of emissions outside the assigned channel, greater attenuation may be required.

(c) The requirements of § 73.687(c)(2) will be considered to be satisfied insofar as measurements of operating power are concerned if the transmitter is equipped with instruments for determining the combined visual and aural operating power. However, licensees are expected to maintain the operating powers within the limits specified in § 21.904. Measurements of the separate visual and aural operating powers should be made at sufficiently frequent intervals to insure compliance with the rules and in no event less than once a month.

(d) Television transmitting equipment designed for stations whose authorized bandwidth in 4 MHz or less for the visual and accompanying aural signal is subject to the provisions of § 21.101 with respect to the frequency tolerance of the visual and aural carriers. Such equipment is also subject to paragraphs (a) and (b) of this section, except that the provisions of § 73.687(a), (b), and (c)(1) of this chapter shall not apply.

(e) As a further exception to the other requirements of this section, transmitting equipment characteristics may vary from these requirements to the extent necessary to insure that transmitted information is not likely to be received in intelligible form by unauthorized subscribers or licensees, provided such variations permit recovery of the transmitted information without perceptible degradation as compared to the same information transmitted without such variations.

* * * * *

Antenna, Directional
Contour, Measurements
Coverage
Site Availability

Commission eliminated premium signal coverage requirements for business and factory areas within the community of license of AM stations. Also, permittees of directional AM facilities are no longer required to take field strength measurements in connection with their covering license application. Both of these requirements were deemed outmoded and burdensome on AM licensees and Commission staff. —*Amendment of Part 73*
MM Docket No. 83-15

FCC 84-243

BEFORE THE
FEDERAL COMMUNICATIONS COMMISSION
WASHINGTON, D.C. 20554

In the Matter of Amendment of the AM Broadcast Station Rules With Respect to Signal Coverage Requirements Over Community Business and Factory Areas.	MM Docket No. 83-15 RM-4061

REPORT AND ORDER

Adopted: May 24, 1984; Released: June 1, 1984

BY THE COMMISSION:

Introduction

1. In this *Report and Order*, we are amending Part 73 of the Commission's rules with regard to signal coverage requirements for AM broadcasters. In general, these amendments reduce the coverage requirements for signal intensity over business and factory areas to 5 mV/m. In addition, the requirement for permittees of directional AM facilities to take field strength measurements in connection with their covering license application is deleted.

Background

2. On January 13, 1983, the Commission adopted a *Notice of Proposed Rule Making* (*Notice*) which set forth proposed amendments of Part 73 of the Commission's Rules concerning signal coverage requirements for AM broadcasters.[1] This *Notice* was initiated in response to a petition for rulemaking filed by the law firm of Miller and Fields, P.C. seeking deletion of the requirement in Section 73.24(j) of the Commission's rules that AM broadcast stations place a 25 mV/m signal over a community's business district.[2]

3. Specifically, Section 73.24(j) requires AM radio stations to provide 25 mV/m contour over the business district and a 5 mV/m contour (or, at night, the interference-free contour, if of a higher value) over all residential areas of the community of license. These signal coverage requirements are intended to guarantee that the principal community served by the AM facility receives premium reception service.[3] In particular, the 25 mV/m business coverage standard was established as a result of the propagation characteristics of the frequencies used by AM broadcasters. The higher signal level was chosen to overcome "noise" caused by electrical machinery and equipment generally associated with business districts. Also, AM frequencies tend to be absorbed by large steel-girded buildings, many of which are clustered in a community's business district. As stated in the *Notice*, however, the vast majority of AM grants today are for small communities outside metropolitan areas. Consequently, large buildings and man-made noise are no longer the problems they were when this rule was first established. In addition, growth patterns in many American cities have given rise to extensive suburban retail areas making it difficult to determine the community's principal business and factory areas.[4]

4. In addition to Section 73.24(j), signal strength standards for AM broadcasters are also found in Sections 73.182(f) and 73.188(b)(1) of the rules. Section 73.182(f) specifies the signal levels necessary to render primary service to different types of service areas. For example, primary service to business and factory areas established a field strength of 10 to 50 mV/m and primary service to residential areas requires a field

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[1] 48 FR 3385 (Published January 25, 1983).

[2] Public notice of the petition was given March 9, 1982, Report No. 138.

[3] Premium service which is required over an AM station's principal community, should not be confused with primary service as defined in Section 73.182 of the Rules. The obligation to provide premium service imposes a higher standard than that required for primary service. *Greenwich Broadcasting Corp.*, 36 FCC 1294 (Rev. Bd. 1964).

[4] The signal coverage requirement is met if the requisite signal is put over the "principal" business and factory areas. *See, H-B-K Enterprises,* 13 RR 2d 1135 (Rev. Bd. 1968).

strength of 2 to 10 mV/m.[5] Section 73.188(b)(1) states that transmitters be located such that a minimum field strength of 25 to 50 mV/m will be obtained over the business or factory areas of the city. In the *Notice*, it was suggested that all of these signal requirements be reduced to 5 mV/m or less.

5. The Commission also sought comment in the *Notice* on the appropriateness of Section 73.151(a)(3) and its suggested deletion. In essence, this rule requires permittees of directional AM facilities to take field strength measurements in connection with their license applications to determine that the 25 vV/m contour covers the main business district and that the 5 mV/m and nighttime interference-free contours encompass the community of license. This rule, in effect, duplicates the intent of Section 73.24(j) which requires a showing from construction permit applicants that the specified contours will cover the community of license.

Summary of the Comments

6. Of the sixteen initial comments received, thirteen were in favor of the proposed modifications.[6] Many commenters reiterate the problems associated with these particular rules that were posited in the *Notice*. They state that it has become increasingly difficult to identify "major business areas." They note that due to urban sprawl, business areas are no longer concentrated. They also note that suburban malls, following population shifts, have sprung up outside central business areas. Further, several commenters point out that most AM allocations are being made outside metropolitan areas that have no large industrial centers with intensive man-made "noise" that causes interference to AM reception. Some commenters point out that strict application of the 25 mV/m standard could actually serve to prevent new AM service by severely limiting transmitter site locations.

7. Many commenters also state that market forces will encourage broadcasters to provide the most extensive and highest quality service permitted. These commenters believe that market forces will adjust deficiencies in service better than regulatory enforcement efforts. The law firm of Putbrese and Hunsaker, for example, states that the constant flow of applications to the Commission for major and minor facility changes document the fact that licensees try to improve service and coverage to remain competitive. "[(T)]hus inadequate signal intensity to a given area within the licensee's principal community is self-correcting," according to this commenter.

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[5] When a range of values is given, the Commission has held that the lowest or minimum figure given is controlling. The Commission does not employ a sliding scale approach based on the size of a community. *S&W Enterprises, Inc.*, 37 FCC 220 (1964).

[6] The list of commenters appears as Appendix B. There were 16 comments and four reply comments filed in response to the *Notice*.

8. Regulatory burden was cited as another reason to eliminate these rules. The commenters believe that the 25 mV/m standard is a limitation not necessarily related to the actual needs or realities of the community. In this regard, United Broadcasting states that AM applicants and broadcasters are forced to make subjective, speculative judgments about what constitutes the major business district of the city. Therefore, they believe that the rule is very difficult to comply with and that elimination of the rules would lessen the regulatory burdens imposed on AM applicants, especially those building new facilities.

9. Commenters also point out that requiring a 25 mV/m signal over today's business center is outmoded. The original intent of the rule when adopted was to ensure that heavy industrial areas received premium service. These industrial areas are now well served by older AM stations and FM stations. Some believe that the newer industrial areas do not create as much "noise" as older industrial areas. The commenters state that Part 15 and Part 18 insures against excessive radio frequency emissions created in industrial areas. Therefore, unlike the 1930's when the standards were originally adopted, higher signal levels are no longer necessary.

10. With regard to Sections 73.182(f) and 73.188(b)(1), the commenters insist that there is no need to retain the higher signal level requirements. They believe a single 5 mV/m coverage standard is adequate for both the business and factory districts and the residential areas of a community. Similarly, with regard to Section 73.151(a)(3) which requires licensees of AM directional facilities to take field strength measurements that certify compliance with specified contours, the commenters feel that this rule is also not necessary. The commenters state that this testing is duplicative of the construction permit measurement requirements and is thus an unnecessary expense borne only by licensees of directional facilities. Further, the commenters state that the field strength measurements are approximate due to seasonal variations in soil conductivity and are therefore reliable only at the actual time tested.

11. Three commenters opposed deletion of the 25 mV/m standard (ABC, Radio Broadcast Licensees and Robert A. Jones, P.E.). Mr. Jones believes that deletion of this requirement would benefit those applicants in large cities where higher "noise" levels prevail. Mr. Jones points out that smaller cities have transmitter sites available to meet the 25 mV/m requirements and would therefore not be affected by deleting the rule. ABC and Radio Broadcast Licensees claim that noise intensity continues to be a problem. ABC suggests that high man-made noise devices (e.g., fluorescent lighting and computers) make necessary high signal levels over the core of the city. Radio Broadcast Licensees points out that the 25 mV/m requirement applies to the "principal" business area only, not all

business areas and is therefore easier to comply with than implied by the Commission in the *Notice*.

12. ABC and Radio Broadcast Licensees also state that the rules the Commission are proposing to eliminate or modify are needed to uphold the thrust of Section 307(b) which assures a fair, efficient and equitable distribution of radio service. They believe that the retention of the premium business area coverage standards are critical in view of the proposed elimination of Suburban Community, Berwick and de facto reallocation policies.[7] The Radio Broadcast Licensees claim that a 5 mV/m standard would permit stations to move their transmitting facilities toward larger nearby markets. Likewise, ABC believes that the 25 mV/m standard is necessary so that a station will not abandon its community.

13. Both ABC and Radio Broadcast Licensees suggest that perhaps coverage requirements should be redefined rather than deleted. Both suggest a requirement of a 15 mV/m signal over an Arbitron metro area or a 10-15 mV/m signal over a 5 mile radius around the main post office of the community of license. Robert A. Jones suggests a 12.5 mV/m standard as a compromise. ABC and Radio Broadcast Licensees propose retaining the waiver process and Radio Broadcast Licensees recommends that licensed stations should have grandfathered rights as to *new* business districts within the community of license.

Discussion

14. Most of the commenters support the Commission's position as explained in the *Notice*. The initial reason for the 25 mV/m signal requirement was to overcome "noise" created in the industrial centers of cities. However, as stated in the *Notice*, growth patterns in many older established cities have given rise to extensive and widely scattered suburban retail and industrial areas with a subsequent decline in central business districts. These newer suburban retail and industrial areas generally do not have the signal problems (such as, many large steel-girded buildings and intensive man-made noise) associated with older industrial centers. Furthermore, newer AM allocations are generally going to smaller communities whose central or principal business centers in all likelihood do not create the man-made noise typically generated by older industrial centers. Accordingly, a 25 mV/m coverage requirement is not necessary to provide adequate service to these business districts. Therefore, strict interpretation of the rule requiring 25 mV/m signal over every widely scattered principal business district could in effect require 25 mV/m signal coverage for the entire community.

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[7] *See Report and Order*, BC Docket No. 82-320, (48 FR 12094), March 23, 1983. This *Report and Order* is under reconsideration.

15. In addition, broadcasters' revenues are determined in large part by the size of their audience. Thus, we believe that licensees have strong market incentives to cover the greatest potential audience with the most effective signal. Should a certain signal level be needed to reach a potential area or particular audience, the licensee may produce such a signal level without the urging of Commission requirements. In this regard, we believe that broadcasters will not reduce transmitter power. Furthermore, a 5 mV/m standard for the principal community of license would appear to be adequate to meet the basic needs of a community without overburdening a licensee with essentially a tiered service requirement.

16. A 5 mV/m minimum coverage standard also alleviates some problems of finding suitable transmitter sites. Obviously, a 25 mV/m standard over certain sections of the community either eliminates some potential locations for transmitters or in effect requires 25 mV/m over the entire community if there are many widely scattered business and factory areas to cover. In either case, the licensee may be forced to choose a site which is unnecessarily costly. Further, to the extent that a licensee wishes to put a 25 mV/m signal over any or all of the community, he or she may do so at his or her own discretion.

17. A few commenters expressed concern over the possibility that licensees may move their transmitter away from the community of license toward larger nearby communities if the 25 mV/m standard is eliminated. According to ABC and Radio Broadcast Licensees, this would, in effect, subvert the intent of Section 307(b) of the Communications Act which assures the "fair, efficient, and equitable distribution of radio service among the several states and communities." The Commission does not foresee wholesale movement of transmitter sites by reducing the standard to 5 mV/m. Licensees will still have to serve the entire community with a 5 mV/m standard as before. Reducing the standard will however allow licensees more discretion in selecting transmitter sites. Several commenters stated that they had problems in finding and obtaining transmitter sites to comply with the rules and that the premium service standards were particularly onerous. A 5 mV/m standard relieves licensees of the burden of providing higher signal service to areas that may not be well defined. As stated previously, it is in the licensees' own best interests to serve as many people and as wide an area as the rules allow with adequate signal strength. Marketplace forces should serve to have the best signal exist wherever possible without artificial mandates regarding differing levels of signal coverage within a community. The Commission has already accepted a 5 mV/m coverage standard for the entire community of license. The Commission now feels that this standard is an adequate minimum for all areas within the community of license

whether business, industrial or residential and that having higher signal levels in any area within the community of license is a decision best left to the licensee.

18. The Commission therefore amends Section 73.24(j) and 73.188(b)(1), as described in the attached Appendix, to eliminate the separate signal coverage requirements for business and factory areas and adopt a single minimum premium coverage standard of 5 mV/m for all areas within the principal community of license for AM broadcasters. In addition, changes have been made to Section 73.188 to modify or remove language referring to out-dated engineering practices. These changes are strictly editorial in nature and therefore the prior notice and comment requirement of the Administrative Procedures Act does not apply.

19. With regard to Section 73.151(a)(3) which requires permittees of directional AM facilities to make field strength measurements in connection with their covering application, we find that this requirement is duplicative of showings required by Section 73.24(j) and exacts an unnecessary burden on both the permittee and the Commission's staff. Accordingly, we are deleting this rule section. As stated in the *Notice*, this requirement only applies to directional AM facilities. The absence of a similar requirement with respect to nondirectional AM facilities has resulted in no significant public interest problems.

20. In the *Notice*, we proposed that Section 73.182(f) be amended to delete the signal requirement for business and factory areas and to reduce the city residential area requirement to 2 mV/m. The *Notice* also proposed a reduction of the signal strength requirement in rural areas. However, in this last regard, Section 73.182(f) specifies signal requirements for primary service based on population that would be in conflict with the values proposed in the *Notice*. Accordingly, we will amend our rules to combine the requirements contained in Sections 73.182(f) and (g) into a new Section 73.182(f) and make certain other editorial changes. The primary service requirements will be as follows: 2 mV/m for communities with populations of 2,500 or more; and, 0.5 mV/m for communities with populations less than 2,500. This change is editorial in nature and is consistent with past Commission interpretations of the primary service requirement.[8]

21. Pursuant to the Regulatory Flexibility Act of 1980, the Commission's final analysis is as follows:

I. Need for and purpose of the rules.

The Commission has determined that the 25 mV/m coverage requirement for business areas within the community of license is outmoded and vague in its application and should no longer be required. A reduction to a

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[8] *See, for example,* 63 FCC 2d 824 (1977).

5 mV/m standard will be sufficient to serve all areas within the community of license. Reducing coverage standards within the community potentially benefits all AM licensees by allowing greater flexibility in locating transmitter sites. In addition, the Commission has deemed irrelevant a rule which in effect requires licensees of directional AM facilities to take field strength measurement that recertify compliance with differing coverage standards within the community of license. Licensees of all new directional AM facilities are therefore benefitted by removing the field strength measurement requirements.

II. Summary of issues raised by public comments in response to the initial regulatory flexibility analysis, Commission assessment, and changes made as a result.

A. Issues Raised

1. No issues or concerns were raised specifically in response to the initial regulatory flexibility analysis. The issue of reducing signal coverage within the community of license from 25 mV/m to 5 mV/m received generally favorable reactions. Some parties expressed concern that a reduction in coverage standards within a community allows stations to move their transmitters toward larger nearby population centers thus subverting the intent of Section 307(b) which mandates a fair, equitable distribution of service.

B. Assessment

1. The Commission views the relative absence of specific claims of adverse impact with respect to reducing signal coverage standards within a community, with the exception of Section 307(b) intentions, as confirmation of our initial analysis in which we suggested that the proposed amendments would lessen the burdens on AM applicants. The amendments are deregulatory in nature and would appear to have no potential for negative effects on small business.

C. Changes made as a result of such comments.

None.

III. Significant alternatives considered and rejected.

1. The Commission's other alternatives were: (1) retain the 25 mV/m signal standard; or (2) adopt a reduced coverage standard between 25 mV/m and 5 mV/m. Neither of these options allow the full potential benefits of a 5 mV/m standard to accrue to AM applicants. These options were deemed too restrictive by the Commission and therefore rejected.

22. Authority for amending the rules is contained in Section 303 of the Communications Act of 1934, as amended.

23. Accordingly, IT IS ORDERED, that Part 73 of the Commission's Rules ARE AMENDED as set forth in Appendix A, effective July 9, 1984.

24. IT IS FURTHER ORDERED, that the Secretary shall cause a copy of the *Report and Order*, including the regulatory flexibility analysis, to be sent to the Chief Counsel for Advocacy of the Small Business Administration in accordance with Section 603(a) of the Regulatory Flexibility Act (Pub. L. No. 96-354, 94 Stat. 1164, 50 U.S.C. § 601 *et. seq.*) (1982).

25. IT IS FURTHER ORDERED, that this proceeding IS TERMINATED.

FEDERAL COMMUNICATIONS COMMISSION
WILLIAM J. TRICARICO, *Secretary*

*Appendix B-may be seen in FCC Dockets Branch, 1919 M Street, N.W. Washington, D.C. 20555.

Appendix A

Part 73 of Chapter I of Title 47 of the Code of Federal Regulations is amended as follows:

Part 73 - Radio Broadcast Services.

1. Section 73.24 is amended by revising paragraph (j) to read as follows:

§ 73.24 Broadcast Facilities; showing required.

* * * * *

(j) That the 5 mV/m contour (or, at night, the interference-free contour, if of a higher field strength) encompasses the entire principal community to be served.

* * * * *

§ 73.151 [Amended]

2. In Section 73.151, subparagraph (a)(3) is removed and designated reserved.

3. Section 73.182 is amended by revising paragraphs (f) and (g) to read as follows:

§ 73.182 Engineering standards of allocation.

* * * * *

(f) The groundwave signal strength required to render primary service is 2 mV/m for communities with populations of 2,500 or more; and 0.5 mV/m for communities with populations of less than 2,500. See § 73.184 for curves showing distance to various groundwave field strength contours for different frequencies and ground conductivities, and also see § 73.183, "Groundwave signals."

(g) The FCC will authorize a directional antenna for a Class IV station for daytime operation only with power in excess of 0.25 kW. In computing the degrees of protection which such antenna will afford, the radiation produced by this antenna will be assumed to be no less, in any direction, than that which would result from non-directional operation using a single element of the directional array, with 0.25 kW.

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4. Section 73.188 is amended by revising subparagraphs (a)(1), (b)(1) and (b)(2); removing paragraphs (c) and (d) and marking them reserved to read as follows:

§ 73.188 Location of Transmitters.

(a)***

(1) to adequately serve the community to which the station is to be authorized.

* * * * *

(b)***

(1) A minimum field strength of 5 mV/m will be obtained over the entire principal community to be served.

(2) The population within the blanket contour does not exceed that specified by Section 73.24(g).

* * * * *

(c) [Reserved]

(d) [Reserved]

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Rule Making, Petition for, Denied
Translator, FM

Petition for Rule Making to expand services of FM b/c translators denied. Commission concluded that to initiate action on proposals is untimely, because of ongoing proceedings.
—*Amendment of Part 74*
Docket 19918

FCC 84-158

BEFORE THE
FEDERAL COMMUNICATIONS COMMISSION
WASHINGTON, D.C. 20554

In the Matter of

Amendment of Part 74, Subpart E of the Commission's Rules Pertaining to FM Radio Broadcast Translator Stations.	Docket 19918 RM-2235
Amendment of Subparts F and L of Part 74 to permit use of alternative input sources for FM broadcast translator stations and to permit uniform 10 watt FM translator power.	RM-3914

MEMORANDUM OPINION AND ORDER
Proceeding Terminated

Adopted: *April 11, 1984; Released; May 18, 1984*

BY THE COMMISSION: *COMMISSIONER RIVERA CONCURRING IN THE RESULT.*

Introduction

1. By Petition for Rule Making filed May 27, 1981, the Moody Bible Institution of Chicago ("Moody") petitioned for amendment of Subparts F and L of Part 74 of the Commission's rules to expand the services of FM broadcast translators.[1]

2. The amendments requested would permit FM translators to broadcast program material received via microwave and satellite circuits, broadcast programs specifically originated for a national audience via unattended translators, and originate unlimited hours of local and

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[1] 47 CFR 74.1201-1284; 47 CFR 74.601-682.

recorded programs. Moody requested that FM translators be authorized in all areas of the country with a uniform 10 watt transmitter power. In addition, Moody requested that licensees of FM translator stations be permitted to use TV auxiliary Microwave channels on a secondary non-interference basis for extending the programming of the primary stations to locations beyond the normal reception range of the primary FM stations and to obtain alternative program sources.

3. Moody notes that the current rules restrict translators to the simultaneous rebroadcasting of FM signals received "off air" from a primary FM station or another FM translator. This limitation, Moody claims, makes it necessary to use large, expensive antennas to receive the primary signal and rebroadcast it to the shielded community. The same signal could be more easily and clearly received via satellite microwave transmission, and the transmitter could be located so as to maximize reception quality to the public. The result, Moody says, would be less expense for the licensee and better service to the public. Moody argues that this problem could also be minimized by the use of "FM broadcast relay stations." Its petition requests amendment of Subpart F of Part 74 to permit the use of Bands A, B, and D by such relay stations on a secondary non-interference basis to other TV auxiliary stations.

4. Moody emphasizes that FM translator rules originated from existing TV translator rules but that while the Commission has recognized the potential of television translators through the use of a variety of input sources, the same technological developments have not generated similar consideration for FM translators.[2] The Commission has, for example, permitted TV translators to be relicensed as low power TV stations so that, in addition to simultaneous retransmission of off air signals of TV broadcast stations, they may also broadcast unlimited periods of locally originated programs and programs obtained by recordings, satellite, microwave and other sources.[3]

5. Moody argues that requests for waivers to permit construction of satellite-fed FM translators filed by other parties indicate interest in regulatory reform. Moody further contends that new technologies provide the potential for enhanced service and program diversity to the public via translators. Satellite and microwave feeds, if authorized, could offer more dependable transmission and increased translator service areas, so as to maximize the signal reception in targeted areas.

6. Moody also requests that LPFM service be authorized on a parity with low power television with respect to program origination potential. The authority to originate local programming, it claims, would be consistent with the Commission policy that led to expansion of secondary

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[2] *Report and Order* in BC Docket No. 20539, 42 RR 2d 101 (1977).

[3] *Report and Order* 47 FR 21468, 51 RR 2d 476 (1982).

television service. Origination capability would be especially responsive to the needs of smaller communities that lack a population base sufficient to support a full power FM broadcast station. Local programming responsive to community needs and "narrowcasting" aimed at specific population demographics could be supported. The use of additional input feeds in combination with authority to originate programming would provide the greatest potential for diversity of aural services to the listening public.

7. Finally, Moody contends that translators should be allowed to operate with 10 watts transmitter power regardless of their geographic location. The maximum power of a particular translator, within this range, would continue to be limited by the interference protection standards which secondary broadcast services must adhere to or cease operation. Moody argues that the rules should not arbitrarily limit the power of translator stations in certain locations if they can, in fact, operate with higher power and not cause prohibited interference.

8. The Commission published a Notice of Petition for Rule Making requesting comments on Moody's Petition. Ninety-nine comments were received. Fourteen formal comments were filed by broadcasters, networks, industry trade organizations and other communications companies. Informal comments were submitted by 85 individuals across the nation. In response to the initial comments the Commission received four reply comments including two from petitioner, Moody Bible Institute.

Regulatory Background

9. The Commission currently authorizes three types of stations to provide FM broadcast service to the public: full-service stations,[4] translator stations, and booster stations. Full-service stations provide primary service to most of the public while translators and boosters provide "fill-in" service. Specifically, translators and boosters receive the signal of a full-service station and simultaneously rebroadcast it to a community or area otherwise unable to receive the primary station's signal. Translators are secondary stations in that they must not cause interference to reception of full-service broadcast stations.

10. The service area of a translator may extend outside the service area of the primary station and can be licensed to any qualified individual, organized group of individuals, local civil government body, and with certain limitations, broadcast station licensees.[5] Translators are frequency conversion devices that receive an incoming signal on one frequency, amplify it, and "translate" it to another for simultaneous rebroadcast. The existing rules permit them to translate "...the signals of an FM

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[4] "Full service stations" as used herein refers to FM broadcast stations licensed under Subpart 3 of Part 73 of the Commission rules, 47 CFR § 73.201-73.346.

[5] See, 47 CFR § 74.1232.

broadcast station or another FM translator station which have been received directly through space, converted, and suitably amplified."[6] Translators may also broadcast locally-originated material in case of an emergency, or to request or acknowledge contributions. In the latter case, they are limited to a maximum transmission time of 30 seconds each hour.

11. Translators may operate with a maximum transmitter power output ("TPO") of either 1 or 10 watts depending upon their location. Stations located east of the Mississippi River and in Zone I-A are limited to 1 watt.[7] There is no limit on the effective radiated power translators may achieve with directional antennas.

Review of Comments

12. As noted earlier, the Commission received nearly 100 comments, formal and informal, in response to Moody's Petition for Rule Making. The formal comments were evenly split on whether FM translators should be allowed to use a variety of input feeds and have expanded origination capacity. In general, those favoring the authorization of additional input sources also favored expanded origination capacity or a new "low power FM" service.

13. American Broadcasting Companies Inc. ("ABC") and the National Association of Broadcasters ("NAB") were generally in favor of expanding translator access to satellite programming and microwave transmissions but were opposed to the institution of a LPFM service authorizing unlimited origination. The NAB and the National Radio Broadcasters Association (NRBA) voiced similar requests for a Commission inquiry into the economic and administrative impact that would result from implementation of Moody's proposal. They asked that the Commission carefully consider the administrative demands that would be generated by the expected filing of thousands of applications. They also asked that such an inquiry consider the potential for serious economic injury to small full service radio stations. Their comments expressed the concern that LPFM stations would divide the market by airing programming from satellites and distant microwave feeds causing local full service stations and their local programming to perish from the air waves. These issues are also addressed in an outstanding *Further Notice of Proposed Rulemaking* in Docket 19918, adopted by the Commission on March 22, 1978, (43 FR 14695).

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[6] 47 CFR § 74.1231.

[7] Zone I-A is the Commission's designation for that part of California below the 40th parallel. Stations located elsewhere may operate with 10 watts.

14. A number of these comments also addressed the need for changes in the current translator ownership restrictions contained in the Rules.[8] M/A COM urged the Commission to avoid imposing any ownership limitations on who may own FM translators. John A. Watkins and Wycom Corporation suggested the Commission delete its existing restrictions. The National Citizens Committee for Broadcasting ("NCCB"), on the other hand, stated that it could support "reasonable ownership limitations." The ownership restrictions were also discussed by those parties opposing the Moody petition. These parties felt that the Commission should consider rule changes so FM licensees could establish translators outside their 1 mV/m contours or assist groups interested in doing so. Thomas W. Read submitted a petition for rule making seeking changes in the FM translator rules so *commercial* FM station licensees could operate translators anywhere within 150 miles of their station.[9]

15. Opposing comments from Cascade Broadcasting Corporation cited the economic impact FM translator stations would have on local full service stations. It maintained that local stations are frequently marginal operations and translator stations could drive them out of business. The NRBA echoed these comments stating that the establishment of a large number of translator stations could deleteriously affect the health of the broadcast industry. On the other hand, the NCCB argued that the "economic injury" issue posed by current broadcasters is without merit where marketplace sensitivity is paramount.

16. Some commenters were concerned about adequate interference standards for protection of full service stations. NAB, ABC, Read Broadcasting System ("Read") and the NRBA all referenced the need to plan for the impending drop-in of several new full service FM stations contemplated by our actions in BC Docket 80-90. The commenters generally suggested that no LPFM assignments could be made before the completion of this proceeding to provide adequate interference protection to the full service broadcasters.

17. Family Stations, Inc. ("Family") submitted late-filed comments in support of both translator access to additional input feeds and a uniform 10 watt power limit. It did not support Moody's origination proposal reasoning that there was no compelling public interest need for small originating stations. In addition, it stated that origination potential was likely to encourage the submission of more applications which would

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[8] Section 74.1232(d) prevents licensees of FM broadcast stations from establishing translators outside their service area. Specifically, it prohibits any licensee of a FM broadcast station, or any applicant that has received support from such a licensee, from being authorized to operate a commercial translator outside the 1 mV/m contour of the primary station and within the 1 mV/m contour of another commercial station assigned to a different community.

[9] Mr. Read's petition was accepted as a comment on the Moody petition.

compound the processing problems without an offsetting benefit potential. The 85 informal comments received from radio listeners across the nation were unanimously in favor of expanded authority for translators. Most of the comments were specifically interested in receiving Moody's religious programming by way of satellite and microwave feeds to translators.

18. Moody's reply to the Family comments agreed that its position on origination had some merit. Moody accordingly amended its proposal to propose that origination be limited to 90 minutes weekly rather than unlimited as initially proposed. This limit on origination would not stimulate a flood of applications, it reasoned, yet it would still provide for some local programming. Moody's second reply comment maintained that the low power of FM translator stations is one reason why they will not be able to compete with full service stations. It again stated that it felt that the majority of the new FM translator stations would be located in rural areas. Finally, it suggested that full service stations could establish translators at their 1 mV/m "contour fringe" to "bolster their economic position."

19. NCCB and Moody responded to those commenters fearful of excessive competition if the FM translator rules were modified. NCCB stated that "... enhanced competition is healthy for the radio marketplace, beneficial to the public, and a necessary prerequisite to any further consideration of deregulation of broadcasting." The translator service, it stated, should not be used to further concentrate control of the industry as would occur if the suggestions of the NAB, ABC, and Read were followed and only the ownership rules in Section 74.1232 were modified. Instead, it argued "... that [low power FM translators] should be used as a means of opening up media access to 'historically under represented groups' and should be implemented in an expeditious and even-handed manner." ABC's reply comments stated that no significant increase in local service would be likely to result from FM translator stations. It agreed with NAB's view that the restricted service contours and budgets of FM translator stations were unlikely to generate production of original local programming.

Discussion and Analysis

20. The Commission recognizes the benefits that could flow from Moody's suggested rule changes, but we do not believe that this is the proper time to undertake the significant expansion of the FM service which would likely result from that proposal. We note, for example that the number of FM translator applications filed in recent months has dramatically increased, and it appears that many of the applicants are anticipating the establishment of a new FM low power service similar to the low power TV service. Some parties have filed a large number of

applications for many locations in population centers that, if granted, would virtually preclude other applicants. Moreover, informal inquiries indicate that, in addition to educational and religious organizations, real estate firms, aspiring disk jockeys and entertainers, political and public interest organizations, operators of stadia and auditoria, athletic organizations, amusement parks, golf courses, ski and other resort operators, summer camps, outdoor theater operators, and numerous other commercial enterprises would also be interested in operating their own low power radio stations.

21. Thus, it is clear that institution of a LPFM service would be greeted by the same application interest as LPTV, and similar processes would have to be developed to handle the staggering application flow.[10] Assuming that the necessary automated engineering standards could be developed, the Commission would require substantial increases in staff and equipment to handle the demand and resolve mutual exclusivities. Even assuming that these impediments could be overcome, this does not appear to be the proper time to open an inquiry that could result in substantial increases in the number of secondary stations occupying the FM band.

22. The Commission has recently amended its FM technical rules to permit additional classes of stations and permit Class A stations to operate in channels that had been reserved for Class B and C use.[11] As a result of those rule changes and in an effort to control the workload, the Commission adopted a *Notice of Proposed Rulemaking* in Docket 84-231, proposing 684 additions to the FM table of allotments.[12] That *Notice* also requested interested parties to submit counterproposals to the Commission's list. At this stage of the proceeding, it is impossible to predict the number of counterproposals that will be received and the number of channels that will ultimately be added under Docket 84-231. Moreover, upon conclusion of Docket 84-231, the Commission expects to receive numerous additional requests for new FM station allotments in compliance with the rules adopted in Docket 80-90. To propose new rules to permit the expanded growth in translator stations, even on a secondary basis, while attempting to complete the FM omnibus rulemaking would not only be counter-productive for us, but misleading for prospective translator operators. Although translators would be on notice of their secondary rights to a channel, once established, the Commission may have

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[10] The list of potential users for such a low power radio service would be almost limitless. The RF Devices branch of the Commission's Office of Science and Technology and the Mass Media Bureau are continuously receiving inquiries from those expressing an interest in operating a limited range special purpose service in the brandcast bands because of the availability of low cost receivers.

[11] Docket 80-90, 48 F.R. 29486, June 27, 1983.

[12] 49 F.R. 11214, March 26, 1984.

difficulty in the forced removal of an established service. At this point, translator applicants would find it virtually impossible to accurately choose channels insulated from the impact of Dockets 80-90 and 83-231.

23. Moreover, the situation in FM is not directly analogous to TV, in which the Commission has authorized the use of microwave and satellite fed translators. Initially, we note that virtually the entire population of the United States receives off the air radio service, but TV service is much less extensive. Thus, strong policy considerations mitigated in favor of changes in the TV translator rules which permitted first microwave and satellite feeds and then low power television. These same considerations are not present in FM where virtually all of the United States receives some aural service. Furthermore, the TV video signal is amplitude modulated. Such signals are subject to noise interference to which FM is immune. Thus greater needs existed for a microwave means of feeding TV translators. Also most microwave systems are designed to operate with a constant amplitude output signal typical of FM operation. Linear amplification of an amplitude modulated video signal requires more complex equipment.

24. Recognizing that there may have been a number of impediments to Commission action on its proposal, Moody made several informal suggestions revising its proposal in ways designed to avoid perceived difficulties. As revised, the Moody proposal would permit microwave and satellite program sources only for FM translators operating in the noncommercial part of the FM band. Moreover, rebroadcast would be permitted only for the program of full service noncommercial educational FM stations, and extended local origination would not be permitted. Finally, there would be no change in the current translator power output limitations.

25. Even as amended, we do not believe it appropriate to commence a rulemaking proceeding on the Moody proposal. Indeed, some of the proponent's changes introduced further complications which mitigate against further action at this time. Permitting satellite or microwave fed FM translators to operate only in the noncommercial band will likely increase the interest in such stations. Although that increase is not expected to be as substantial as contemplated for a LPFM service, it will impact a part of the spectrum with significant existing problems.

26. The first 21 channels in the FM band are reserved for noncommercial use. However, we have found that stations operating on the lower channels of the reserved band have the potential to cause interference to the reception of TV Channel 6. There is also the possibility of interference to the reception of TV Channels 7 and 8, particularly in distant areas where TV booster amplifiers are frequently used. In Docket 20735, the Commission is looking into this interference problem and seeking means

to reduce the possibility of it occurring when additional noncommercial educational stations are authorized. One course of action under consideration may place limits on the location and power of stations using some of those channels. Because of their low power, FM translators must be located within the population center of the area to be served. This is also the area that is most susceptible to TV interference complaints. Accordingly, proceeding with a proposal to authorize additional stations in the noncommercial band is not appropriate until we have resolved these interference issues.

27. The selection of the noncommercial band would also complicate the Commission's engineering review of FM translator applications. Noncommercial FM stations are not allotted and licensed according to class and distance separations as are commercial stations. Therefore, a simple distance separation scheme for licensing translators cannot be used in the reserved educational band. An accurate calculation of each full service station's contour would be required to determine the actual protection contour, similar to the difficult calculation procedure used in processing LPTV applications. The Commission staff does not have sufficient information on FM antenna systems in the computer files to conduct this type of application processing. Thus, it is reasonable to expect that the increase in the complexity of the required engineering review would more than outweigh the limitation on the number of applications that could be expected.

28. FM translators in the noncommercial band would also impede the growth of full service stations in that band and effectively re-create the Class D stations. In Docket 20735, the Commission found that the large number of limited range 10 watt Class D stations that had been authorized were impeding licensing of more efficient Class B and C stations that would provide public radio programming to otherwise unserved areas. The *Report and Order*, released in 1978 terminated acceptance of new Class D applications and required existing Class D stations to either upgrade to Class A facilities (100 watts minimum) or move to a non-reserved commercial channel. Class D stations that chose to move to the commercial band no longer had primary status, but could only operate on a secondary non-interference basis. Many Class D stations requested that the Commission permit them to remain on their original noncommercial channel, with secondary status, but the Commission declined to do so. Although a number of the Class D stations elected to move to commercial channels, many others elected to increase their power, and remain in the noncommercial band, resulting in a number of currently pending mutually exclusive applications for power increases. Therefore, to now propose to amend the rules in a manner that would

encourage translator or low power operation in that band would be completely counter-productive.

29. The Moody proposal also bears on another Commission rule making proceeding which warrants consideration at this time. In 1974, the Commission was concerned with an emerging pattern of use of FM translators to extend the service areas of existing FM stations rather than to fill in areas of inadequate direct reception. In the *Notice of Proposed Rulemaking* in Docket 19918, the Commission proposed rules that would prohibit competitive expansion of an FM station's service area through translators where the area to be served was already within the primary service area of two other radio stations.[13] The Commission also proposed a rule which provided for the termination of translator operation upon sixty days notice. The sixty day rule was adopted in the *First Report and Order* in that Docket.[14] In 1978, the Commission issued a *Memorandum Opinion and Order and Further Notice of Proposed Rule Making* in Docket 19918.[15] The Commission therein determined that the two signal limitation was not an appropriate tool for the control of the use of translators for competitive expansion. Rather, the Commission proposed to prohibit the participation of the primary station in the operation of any translators outside their primary area. Upon review of the record accumulated as a result of the *Further Notice,* we find that there has been no additional information brought forth establishing that the present limitations on FM station licensee operation or control of translator stations are inadequate. Accordingly, it appears that no further action is warranted at this time and the Commission takes this opportunity to terminate Docket 19918 without amending the rules.

30. We do not believe that the decision herein is inconsistent with the new Section 7 of the Communications Act.[16] Congress therein declared that it shall be the policy of the United States to encourage the institution of new technologies and services and "[c]onsistent with sound spectrum management, the Commission shall, to the maximum feasible extent, encourage the introduction of new and additional services by new applicants, existing licenses, or other persons." Initially, the service proposed by Moody would not be a "new" service within the meaning of the law. Rather, the service would be an extension of an existing service utilizing existing technology. The proposed changes would merely make a large number of additional stations feasible. Moreover, the proposal is, at this time, inconsistent with sound spectrum management. As indicated above, the Commission is engaged in the study of major changes in the

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[13] 39 Fed. Reg. 1867, 44 FCC 2d 794.

[14] 43 F.R. 14660, published April 7, 1978.

[15] 43 F.R. 14695, published April 7, 1978.

[16] Federal Communications Commission Authorization Act of 1983, Public Law 98-214.

allotment of FM stations. Sound spectrum management requires that we resolve those proceeding before undertaking extension of the existing FM translator service.

31. While we must conclude that it is untimely to initiate action on these proposals now, we are not concluding that these ideas will not prove desirable in the future. Three specific ongoing efforts must be completed before the Commission or perspective applicants would be able to ascertain with any degree of accuracy where or how many new FM translator stations can be accommodated. First, the three year period during which existing less-than-maximum facility Class C stations can be upgraded must pass so that the configuration of those existing stations will become final. Second, our ongoing proceeding to define future protection criteria between television Channel 6 and the FM radio service must be completed so that minimum TV Channel 6 - FM coordination distances can be specified. Third, we must complete the ongoing Omnibus allotment proceeding in Docket 84-231 examining hundreds of new station allotments being created as a result of BC Docket 80-90. Once these three proceedings are completed, the full service station picture will have cleared enough to make a reasoned evaluation of the desirability of expanded FM translator operation. We invite the petitioners to resubmit at that time.

32. For the reasons stated above, IT IS ORDERED, that the Petition for Rulemaking RM-3914, filed by the Moody Bible Institute IS DENIED.

33. IT IS FURTHER ORDERED, for the reasons stated above, The Rulemaking Proceeding in Docket No. 19918 is hereby TERMINATED.

34. IT IS FURTHER ORDERED, that the Secretary shall cause this *Memorandum Opinion and Order* to be published in the FCC Reports.

FEDERAL COMMUNICATIONS COMMISSION

WILLIAM J. TRICARICO, *Secretary*

Reconsideration, Petition for
Rulemaking, Petition for

Petitions for reconsideration and rulemaking in this proceeding granted to an extent and otherwise denied. Issues raised have already been or are being addressed in a separate proceeding.
—*Amendment of Part 90*
Docket 20846

FCC 84-170

BEFORE THE
FEDERAL COMMUNICATIONS COMMISSION
WASHINGTON, D. C. 20554

In the Matter of Amendment of Part 90 of the Commission's Rules to Prescribe Policies and Regulations to Govern the Interconnection of Private Land Mobile Radio Systems with the Public Switched Telephone Network in the 806-821 and 851-866 MHz bands	Docket No. 20846

MEMORANDUM OPINION AND ORDER

Adopted: April 26, 1984; Released: June 20, 1984

BY THE COMMISSION:

Background

1. In view of the length of the pendency of this docket, we feel it is useful to recapitulate the history of this proceeding here for ease of understanding the issues now before us. The Commission initiated this proceeding in 1976 with a *Notice of Inquiry and Notice of Proposed Rule Making* "to better define and regulate interconnection of private land mobile systems with the public switched telephone network [PSTN]."[1] In general, we characterized interconnection as describing those situations "in which a PSTN telephone is interconnected to radio facilities licensed in the private services to permit communications in a radiotelephone mode," and noted that for many years licensees in the private land mobile services

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[1] *Notice of Inquiry and Notice of Proposed Rule Making,* Docket 20846, FCC 76-603 41 Fed. Reg. 28,540 (July 12, 1976).

have used the wireline facilities of telephone companies in conjunction with the operations of their radio systems.[2] Transmitter control in the context of private land mobile stations was the ability of the licensee to turn the land station on and off, which traditionally involved a station operator and compliance with the control requirements.[3] We noted, however, the increasing use of dial-up circuits as a substitute for leased lines to control transmitters, as well as the emergence of automatic interface equipment which obviated the need for a dispatcher manually to interface radio and telephone systems.[4] We stressed our concern that as modern equipment and techniques became available which permitted "connection to be made automatically at the transmitter site, or elsewhere," there was the risk that the licensee's control point operator would lose "effective control" of the transmitters.[5]

2. As an initial point we stated our predisposition to define the "key" to permissible interconnection arrangements as the maintenance of "proper control over the circuit" which was used to turn the transmitter off and on.[6] In order to accomplish this we stated we intended to require "all 'calls' from PSTN telephone positions to be received at the transmitter control position by the licensee's dispatcher and to be manually connected (patched), if interconnection is to be done at all."[7] While we indicated we would not require calls placed from mobile stations into the PSTN to be manually patched, we also stated that the licensee's control station operator must be able to (1) monitor the conversations; (2) interrupt the call; and (3) be able to override the mobile and close down the base station if required.[8] Having enunciated our objectives in this matter, we stated, "but we recognize that restrictions of this kind may go too far." [9] We therefore asked interested parties to address themselves to this subject in their comments as fully as possible.[10]

3. In response to this Notice, numerous comments were filed by associations of radio utilities, private land mobile user groups, local governmental entities, radio equipment manufacturers and emergency service providers. After reviewing these submissions, in 1978 we issued a *First Report and Order*. Interim provisions were applied to the 806-821 and 851-866 MHz bands (hereinafter 800 MHz), while varying conditions

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[2] *Id.* at paragraphs 2 and 7.

[3] *Id.* at paragraph 4.

[4] *Id.* at paragraph 6 and footnote 6.

[5] *Id.* at paragraph 8.

[6] *Id.* at paragraph 10.

[7] *Id.*

[8] *Id.* at paragraph 11.

[9] *Id.* at paragraph 12.

[10] *Id.* at paragraph 18.

and restrictions were adopted to govern the other bands.[11]

4. More specifically, for the bands below 800 MHz, we adopted (1) geographic limitations on all interconnected systems within 75 miles of 25 of the nation's largest urban areas in the Automobile Emergency, Business, Special Emergency, Special Industrial and Taxicab Radio Services;[12] (2) special provisions covering the use of internal systems of communication in conjunction with the operation of private land mobile stations; (3) special provisions to govern the use of dial-up circuits for transmitter control; and (4) special requirements pertaining to the methods of interconnection, such as monitoring by the control operator, and time limitations on interconnected communications. A three second limitation was placed on initial access transmissions from the PSTN, at which time the transmitter would shut down and further communications had to be initiated by the mobile operator. Moreover, the system had to be designed for the transmitter to shut down and all conversation cease after three minutes. In simplex operations, transmissions were limited to 30 seconds prior to shut down. Timers were required to be installed at all base station transmitters which would limit interconnected communications to three minutes, prior to system shut down. We also separated paging regulations from those relating to two-way voice and data communications.[13] Finally, we permitted licensees of existing interconnected systems to continue using them until January 1, 1984. On or prior to this date, however, all of these systems were to be brought into compliance with the rules we adopted in the *First Report and Order*.[14]

5. The *First Report and Order* concluded that the key to permissible interconnection of radio systems with the public switched telephone network was the ability of licensees to maintain "positive control" over "the radio facilities authorized for their use."[15] We also stated we favored the use of dial-up circuits to control private land stations because it was both economic and efficient and because the requirement that private land mobile licensees employ dedicated leased lines was "wasteful of telephone company resources." [16] We modified our rules, however, to limit the use of dial-up circuits to "link 'licensed transmitter control points'" and "transmitters being controlled."[17] Further we required system design features to preclude operation of the land station from any fixed position

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[11] *First Report and Order*, Docket No. 20846, 69 FCC 2d 1831 (1978), 43 Fed. Reg. 38,396 (August 28, 1978), at paragraph 3.

[12] *Id.* at paragraph 4.

[13] *Id.* at paragraph 5.

[14] *Id.*, Appendix B, §89.951(f).

[15] *Id.* at paragraph 7.

[16] *Id.* at paragraph 8.

[17] *Id.* at paragraph 9.

other than a licensed control point.[18] Lastly, we required licensees to employ special equipment to prevent a licensee's mobiles from reaching points in the public switched telephone network other than the authorized control points of the licensee.[19]

6. Upon review of the arrangements and equipment licensees could employ to interconnect their radio stations with the public switched telephone network, we recognized that possible configurations varied "in almost infinite detail."[20] We also noted that the patch or interconnection device was available from a variety of sources and in a wide selection of equipment for operations in both the automatic and manual mode. We further recognized that all types of special equipment were obtainable which (1) allowed automatic channel monitoring; (2) could restrict dialing to pre-determined numbers[21]; and (3) permitted full duplex, half duplex or simplex modes of operation.[22] We therefore concluded that access to the PSTN by licensees of private radio systems was not limited by available technology.[23]

7. We also determined that interconnection of private land mobile radio systems with the public switched telephone network was consistent with the purposes private radio systems were intended to serve.[24] We noted that as early as 1968, in the *Carterfone* case,[25] the Commission had concluded that private land mobile licensees had demonstrated significant needs and requirements for interconnected facilities, and these conclusions were again affirmed in 1978.[26] We also found that there was nothing intrinsic in the nature of private services to bar interconnected operation, and there was no inter-system compatibility argument to persuade us that dispatching types of operation could not continue in the private services merely because other licensees used interconnected circuits.[27] The record persuaded us that the two methods of operation (i.e., dispatching and interconnection) may and do work well and effectively together.[28] In sum, on the entire subject of spectrum impact and the issue of whether interconnection in the private services would achieve or impede efficient communications in the private land mobile radio services, we agreed that interconnection would improve operating efficiencies, particularly where

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[18] *Id.*

[19] *Id.* at paragraph 9.

[20] *Id.* at paragraph 16.

[21] *Id.* at paragraph 18.

[22] *Id.* at paragraph 19.

[23] *Id.* at paragraph 20.

[24] *Id.* at paragraph 21.

[25] *Carterfone,* 13 FCC 2d 420 (1968).

[26] *First Report and Order,* Docket No. 20846, at paragraph 22.

[27] *Id.* at paragraph 28.

[28] *Id.* at paragraph 30.

modern automatic equipment was employed.[29] We did, however, adopt geographic restrictions on interconnection, as noted *infra*, in areas where frequency congestion was present, based on the conclusion that congestion follows population density patterns, had that if the right to interconnect in these radio services were limited to areas 75 miles or more from the centers of the most densely populated urbanized areas, the potential for adverse results would be eliminated.[30] We deferred action on the subject of common point interconnection pending resolution of the regulatory status of third party arrangements.[31]

8. Petitions were received to reconsider various aspects of our *First Report and Order* and in response to these petitions we revisited and modified several aspects of the earlier decision by a *Memorandum Opinion and Order* issued in 1979.[32] More specifically several parties had argued that the geographic and radio service restrictions on interconnection were too broad and should be relaxed.[33] We declined to modify our earlier decision, however, in light of the "high-intensity use services" involved.[34] We also declined to eliminate the rules adopted in the *First Report and Order* which required interconnected communications to be limited in length in automatically interconnected mobile systems. While we recognized such an automatic time out rule could be undesirable, we refused to eliminate it across the board. However, it was eliminated in the Police, Fire, Local Government, Special Emergency, Power, Petroleum and Railroad Radio Services, in recognition of and agreement with the particular arguments made for these exceptions. A *Further Notice of Proposed Rule Making* was also issued in 1979 to address interconnection at 800 MHz.[35]

9. In 1982, in response to the *Further Notice of Proposed Rule Making*, a *Second Report and Order* was released adopting final rules to govern the interconnection of 800 MHz stations. After reviewing the entire history of this proceeding, we reaffirmed the public interest in facilitating interconnection in the private land mobile services,[36] and we

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[29] *Id.* at paragraph 33.

[30] *Id.* at paragraph 31.

[31] *Id.* at paragraph 47.

[32] *Memorandum Opinion and Order*, Docket No. 20846, FCC 79-720, 44 Fed. Reg. 67,119 (November 23, 1979).

[33] One party, Telocator Network of America, argued that the number of geographic areas in which the restriction should apply should be increased.

[34] *Memorandum Opinion and Order*, *supra*, at paragraph 12.

[35] *Further Notice of Proposed Rule Making*, Docket No. 20846, FCC 79-18, (1979).

[36] "Modern society could not function as it does without telephone communications, and information transmitted over private radio facilities often originates from a telephone and *vice versa*. Without interconnection, transfer of such information between radio and telephone facilities can only be accomplished orally through a third party, with the possibility or error. For this reason we concluded in *Carterfone*, 13 FCC 2d 420 (1968),

adopted rules which were less rigid than those adopted in the *First Report and Order*.[37] We concluded that eligibles in the private services should have "freedom to use state-of-the-art equipment and system design" [38] and that their use of their radio system in an interconnected mode should not be "fettered unnecessarily by artificial limitations and restrictions."[39] More specifically, we decided not to adopt any geographical, radio service or time limit restrictions for the bands above 800 MHz. [40] Also we amended our interim rule provisions which limited 800 MHz interconnection to a licensee's premises and prohibited common point interconnection by a group of licensees. [41] In so doing, we concluded the effect of this rule was "unnecessarily inefficient" and denied private radio licensees and users alternatives which "may be economically more desirable." Interconnection was permitted in a manual or automatic mode[42] and there were no time limits imposed on the length of communications.[43] Finally, there were no requirements placed on licensees to employ specially designed channel monitoring equipment.[44] However, we prohibited Specialized Mobile Radio System (SMRS) base station licensees from making arrangements for the telephone service. These changes in the Commission's regulatory structure were designed to increase the utility of private land mobile systems by facilitating the passage of information from a telephone user to a radio user and *vice versa*.[45] These changes were also found to serve the public interest by maximizing consumer choice.[46]

10. On reconsideration, the *Second Report and Order* was modified by a *Memorandum Opinion and Order*, which also addressed the effect of "The Communications Amendments Act of 1982" on the rules govern-

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that interconnection of private radio and telephone facilities is in the public interest, and it increases the utility both of radio facilities and the telephone facilities involved. Even parties opposing permissive interconnection herein do not deny this. Their main concern, rather, relates to the way in which interconnection of private systems to telephone facilities should be accomplished... In sum the need for interconnection at 800 MHz is clear." *Second Report and Order*, Docket No. 20846, 89 FCC 2d 741 (1982) at paragraph 42.

[37] *Second Report and Order, supra*, at paragraph 37.

[38] *Id.*

[39] *Id.*

[40] *Id.* at paragraph 50.

[41] *Id.* at paragraph 49.

[42] *Id.* at paragraph 50.

[43] *Id.*

[44] *Id.*

[45] *Id.* at paragraph 39.

[46] *Id.* at paragraph 43.

ing interconnection above 800 MHz. [47] The *Memorandum Opinion and Order* further amended the rules to allow private licensees and users authorized to operate transmitters in the private land mobile bands at 800 MHz to obtain telephone service from any duly authorized carrier either individually or jointly on a non-profit cooperative basis. Third parties, including SMRS base station licensees and equipment suppliers, were permitted to act as ordering agents in arranging for telephone services for licensees and users, in recognition that this could facilitate the process thereby benefitting the public generally. However, we required the telephone service to be secured on a non-profit, non-resale basis. The *Memorandum Opinion and Order* also addressed arguments that the interconnection device or patch is part of the telephone service and should be provided by an authorized carrier. We determined that the patch is simply an unlicensed piece of electronic gear broadly manufactured and available from many sources and there was no public interest reason for regulating the manner in which it was obtained.[48]

Petitions for Reconsideration

11. Two Petitions for Reconsideration of this *Memorandum Opinion and Order* have been filed. A "Joint Petition for Reconsideration or in the Alternative Petition for Further Rule Making Action" was filed by Communications Sales and Services, Inc., South Texas Radio Service, Inc., Auto Page, Inc. and Louis Systems, Inc. Another request for reconsideration was filed by the Telocator Network of America ("Telocator"). [49]

12. The Joint Petition was filed by a group of small businesses engaged in the sale and servicing of radio equipment. They are licensees and users of private paging and two-way systems. The Joint Petition requests that the Commission reconsider its decision in the *Memorandum Opinion and Order*, or issue a further order amending Part 90 of the Commission's Rules to : (1) eliminate the restriction on transmitter control from positions in the PSTN in the operation of paging stations and (2) eliminate the restriction against the interconnection with the PSTN of

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[47] *Memorandum Opinion and Order*, Docket No. 20846, released May 27, 1983, 48 Fed. Reg. 29,512 (June 27, 1983). The *Memorandum Opinion and Order* addressed Petitions for Reconsideration filed by Telocator Network of America and the National Association of Regulatory Utility Commissioners. The *Memorandum Opinion and Order* has been appealed to the United States Court of Appeals, District of Columbia Circuit, *Telocator Network of America* v. *FCC & USA*, No. 83-1905, and *People of the State of California and the Public Utilities Commission of the State of California, et al.* v. *FCC & USA*, No. 83-1791. *See, also* "The Communications Amendments Act of 1982," P.L. 97-259, 96 STAT 1087, September 13, 1982; see Section 120 (Section 331 of the Communications Act of 1934, as amended, is codified at 47 U.S.C. 332).

[48] *Memorandum Opinion and Order*, at paragraph 16.

[49] Telocator was also one of the parties who petitioned for reconsideration of the *Second Report and Order*.

certain shared radio systems operating below 800 MHz.[50]

13. In support of its request to eliminate the restrictions on transmitter control from positions in the PSTN the Joint Petition points out that the practical effect of the Commission's Rules is to preclude the use of the telephone to control paging transmitters except to the extent the telephone is equipped as a control point. This restricts the flexibility of licensees and users in the operation of their paging transmitters while increasing their cost and reducing the effectiveness of their system.[51] In addition, the Joint Petition notes that there is currently no similar restriction prohibiting access from the PSTN on interconnecting two-way private radio systems. It contends there is no longer justification for the restriction on one-way paging systems and points to the "The Communications Amendments Act of 1982."

14. In discussion of its request to eliminate restrictions on the interconnection of private land mobile radio systems below 800 MHz with the PSTN, the Joint Petition points out that similar restrictions on interconnected shared radio facilities above 800 MHz were removed by the Commission in its *Second Report and Order* and its *Memorandum Opinion and Order*. The thrust of the Joint Petition is that the restriction below 800 MHz which prevents interconnection at a common point where radio equipment is provided by a third party is no longer necessary and is economically inefficient.[52] In addition, the Joint Petition argues that the Commission's deferral of a decision on interconnection at shared locations pending the resolution of the regulatory status of third party arrangements should no longer be an issue in light of the new legislation and the Commission's *Memorandum Opinion and Order*.[53]

15. Telocator, a representative of the radio common carrier industry, argues that the Commission's interpretation of the new legislation and the rule changes made in the *Memorandum Opinion and Order* which permit private licensees and users to interconnect freely, limited only by the prohibition against "resale" of telephone service or facilities, are incorrect and should have been subject to notice and comment. Telocator would interpret the legislation as prohibiting all interconnection of private land mobile radio services with the PSTN, except for certain very limited exceptions. Telocator also argues that by allowing private licensees and users to utilize the services of ordering agents in obtaining telephone service from a duly authorized carrier, the Commission is allowing "resale" of the telephone lines. A third argument made by Telocator

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[50] These regulations are contained in 47 C.F.R. §§ 90.490(c), and 90.477(d)(1) and (2), respectively.

[51] Joint Petition, P. 4.

[52] 47 C.F.R. § 90.477(d)(1).

[53] *First Report and Order, supra*, p. 17.

refers to the amendment of 47 C.F.R. § 190.129(1). This section previously required that applicants proposing to operate interconnected stations include in their applications a complete description of the equipment, devices and techniques to be used to accomplish interconnection. Our amendment simplified this procedure by requiring only that applicants indicate on their applications that their stations will be interconnected, rather than sending detailed descriptions of the interconnection to the Commission. However, licensees were required to maintain detailed descriptions of the interconnection techniques in their station records. Telocator claims that the new rule impermissibly confines its application to the PSTN and that dedicated and non-switched lines should also be included. Finally, Telocator challenges the Commission's decision that the patch may be provided by any third party on a competitive basis, and argues that it must be obtained "directly from a duly authorized carrier."[54]

Oppositions

16. Oppositions to Telocator's Petition for Reconsideration were filed by: the National Mobile Radio Association (NMRA), a non-profit association of small businesses engaged in sales and maintenance of radio communications equipment and systems; the National Association of Business and Educational Radio (NABER), a recognized frequency advisory committee and a non-profit association of Business Radio Service licensees and vendors of private land mobile products and services; and the Central Committee on Telecommunications of the American Petroleum Institute (API), an association of representatives of petroleum and natural gas companies. In general, these parties support our conclusions in the *Second Report and Order* and the *Memorandum Opinion and Order*. They disagree with the points raised by Telocator, and argue that our interpretation of the new legislation is correct. In addition, NABER states that each of the arguments made by Telocator was raised in its Petition for Reconsideration of the *Second Report and Order* and has already been addressed in the *Memorandum Opinion and Order*.

17. Telocator filed an Opposition to the Joint Petition for Reconsideration, arguing that the Commission should not act on the Joint Petition until it resolves Telocator's Petition for Reconsideration.[55]

Decision

18. We have reviewed the various points raised by the petitions for reconsideration and the responses thereto and we affirm our earlier conclusions. We also decline to expand in this document the applicability

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[54] Petition for Reconsideration by Telocator, p. 16.

[55] The Joint Petition filed a Reply to Telocator's Opposition, reiterating its position.

of this proceeding to private land mobile systems operating below 800 MHz.

19. Telocator has requested reconsideration of each of the issues discussed in our *Memorandum Opinion and Order.* These are essentially the same issues previously raised by Telocator in its Petition for Reconsideration of the *Second Report and Order,*[56] with the exception of our interpretation of the legislation, discussed *infra.*

20. Telocator appears to present two arguments for reconsideration of our interpretation of the new legislation. The first argument is a procedural one which claims that the Commission violated the due process rights of the parties by interpreting § 331 without issuing a *Notice of Proposed Rule Making.*[57] The second argument is a substantive one which claims that the Commission interpreted the legislation incorrectly. We fail to find merit in either of these arguments.

21. First, we will address Telocator's allegation that it was entitled to specific notice and an opportunity to comment prior to our considering the impact of the new legislation in the context of this proceeding. the new Section 331(c), which contains specific provisions for private land mobile radio services, was enacted by Congress, signed by the President and became effective on September 13, 1982. Thus, no question exists that all interested parties had constructive, if not actual, notice of the passage of this legislation during the pendency of this proceeding. Accordingly, this is not a case where facts or ideas considered and relied upon during the rule making were available only to the agency. Compare *Portland Cement Ass'n* v. *Ruckelshaus,* 486 F.2d 375, 393 (D.C. Cir. 1973), *cert. denied* 417 U.S. 921 (1974). More importantly, although the provisions of the statutory amendment influenced our policy determinations concerning interconnection, we were not required to solicit public comment before construing or considering the meaning of the legislation. The public had ample notice and opportunity to comment on all aspects of the policy issues under consideration in this docket; matters involving only statutory interpretation are uniquely within an agency's prerogative. *See* 5 U.S.C. § 553(b)(3)(A), [interpretive rules are not subject to the notice and comment requirements of the APA]. Accordingly, we believe that no unfairness resulted merely because we acknowledged and considered the new law when reaching our decision.[58] Furthermore, Telocator stated in its

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[56] Petition for Reconsideration and/or Clarification by Telocator, filed June 3, 1982.

[57] *Petition for Reconsideration,*p.3 Section 331(c) of the Communications Amendments Act of 1982 is codified at 47 U.S.C. § 332(c).

[58] Indeed, we note that Telocator recognized our authority and responsibility in this regard in a separate proceeding where it argued that as of September 13, 1982, ". . . the new test of common carriage in the land mobile services promulgated by that section became an integral part of the law which the Commission is duty bound to execute and enforce. 47 U.S.C. § 151. While there may be a reasonable basis for instituting a rulemaking for

Petition for Reconsideration in this proceeding, that, "the legislation is now the law of the land which the Commission is duty bound to execute and enforce." (Petition for Reconsideration, at page 3). In fact, throughout its Petition, Telocator refers to the Commission's legal obligation and authority under the new legislation. Telocator apparently argues that the Commission has immediate authority to interpret and apply the legislation only if it is in conformance with Telocator's interpretation; otherwise, we must issue a *Notice of Proposed Rule Making* prior to applying the legislation. As discussed above, however, we believe that we were fully empowered to consider the impact of the legislation on issues in this docket without issuing a *Further Notice of Proposed Rule Making.*

22. Telocator also disagrees with our interpretation of Section 331(c), and argues that the new legislation prohibits all interconnection of private land mobile services with the PSTN, except for certain very limited exceptions. Telocator argues that the Commission's application of Section 331(c) is too broad, and "improperly inverts the burden of proof" concerning interconnection, by allowing private licensees and users to interconnect freely, subject to the restriction on the resale of telephone services and facilities. Instead, Telocator would place the burden on the entrepreneurs involved with interconnected stations to prove that the interconnection falls within an "exception to the prohibition" as provided by the legislation. We have considered the argument made by Telocator, and do not find it to have merit. The intent of Congress in drafting this legislation was to clarify that private systems may be interconnected with the PSTN, and remain classified as private land mobile service.[59] This is evident by the accompanying legislative history, which states that "[o]nly if a private land mobile operator or licensee is reselling for profit interconnected common carrier services is the interconnection prohibited."[60] We have interpreted the statute as Congress indicated, by allowing interconnection of private land mobile radio services with the PSTN by eligible users on a commercial basis as long as the telephone services and facilities are provided on a non-resale basis.[61]

23. Although Telocator has not presented any further arguments which cause us to alter our previous conclusions, we will address briefly the other issues it has raised on reconsideration. Telocator argues that by

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the purpose of identifying and revising those already administratively final rules which are affected by the legislation, there is correspondingly no basis whatsoever for refusing to reexamine those rules which are not yet administratively final and which are in conflict with the legislation." Telocator's Reply to Oppositions, filed December 7, 1982, at page 2; See *Memorandum Opinion and Order* Docket No. 80-183, released November 23, 1983, 48 Fed. Reg. 56,229 (December 20, 1983).

[59] *See Conference Report* No. 97-765, 97th Cong., 2nd Sess., August 19, 1982, at 55.

[60] *Id.* at p. 56.

[61] 47 U.SC. § 332(c)(1).

allowing private licensees and users to utilize the services of ordering agents in obtaining telephone service from a duly authorized carrier, the Commission is allowing "resale" of telephone services and facilities. This issue was specifically addressed in the *Memorandum Opinion and Order,* where we stated that any joint arrangements must be for telephone service to be provided on a non-profit basis with costs apportioned among the participating user-licensees on a pro rata formula or paid by each participant to the carrier providing the telephone service.[62] We therefore have continued to prohibit the resale of telephone service or facilities in the private land mobile services. As stated earlier, Congress intended to prohibit interconnection only if the private land mobile operator or licensee is reselling for profit common carrier services or facilities. Our private land mobile rules do not permit resale of telephone services or facilities.[63] Another argument made by Telocator is that the interconnection device or "patch" must be obtained directly from a duly authorized carrier. We received numerous comments on this issue prior to the release of our *Memorandum Opinion and Order,* and see no need to address this in detail at present, particularly since Telocator also argued this point in its Petition for Reconsideration of the *Second Report and Order*. We would only reiterate that the patch is simply an unlicensed piece of electronic gear, which is not part of the telephone facilities and which may be furnished by the provider of the base station equipment or any other third party on a competitive basis.[64]

24. Lastly, Telocator objects to our amendment of 47 C.F.R. § 90.129(1). On February 15, 1983, the Office of the Managing Director released an *Order* eliminating the requirement in § 90.129(1) that applications for interconnected stations in the private land mobile radio services include a complete description of the equipment, devices, and techniques to be used to accomplish interconnection. Instead, as a result of our amendment of Section 90.129(1), applicants are now only required to indicate on their applications that their stations will be interconnected. They then must keep detailed descriptions of the interconnection as a part of their station records but need not file the information with the Commission unless requested to do so in particular instances. On April 4, 1983, Telocator filed a Petition for Reconsideration of the *Order*. However, we specifically addressed this issue in our *Memorandum Opinion and Order* at footnote 18. We concluded that it was unnecessary for this information to be considered on a routine basis, and by requiring licensees to keep descriptions in their station records, we could minimize administrative burdens and obtain the information if necessary to ensure

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[62] *Memorandum Opinion and Order,* at paragraph 14.

[63] 47 C.F.R. § 90.477.

[64] *Memorandum Opinion and Order,* at paragraph 18.

compliance with our rules. Telocator has presented no persuasive argument why that decision should be reconsidered, and we are, therefore, dismissing its Petition for Reconsideration on this point in this proceeding.

25. The Joint Petition raises two requests. The first, elimination of the prohibition on the control of paging transmitters from telephone positions in the PSTN, has already been implemented by the Commission on a limited basis at 900 MHz.[65] As we stated in our reconsideration of our 900 MHz decision, we will not remove this restriction in other frequency bands until more experience is acquired, and we do not find any further action to be appropriate at this time.

26. The second request, for elimination of restrictions on interconnection below 800 MHz, is being addressed in a separate proceeding being initiated in a companion item which incorporates several of the suggestions made in the Joint Petition.[66] We decline, therefore, to address these issues further in this proceeding.

27. Accordingly, IT IS ORDERED That the petitions for reconsideration and rulemaking in this proceeding ARE GRANTED to the extent indicated and DENIED in all other regards, pursuant to the authority contained in §4(i) and 303 of the Communications Act of 1934, as amended.

FEDERAL COMMUNICATIONS COMMISSION
WILLIAM J. TRICARICO, *Secretary*

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[65] *See Memorandum opinion and Order,* Docket No. 80-183, released November 23, 1983, 48 Fed. Reg. 56,229 (December 20, 1983).

[66] *See, Notice of Proposed Rule Making,* Docket 84-414, released June 12, 1984.

Private Land Mobile Radio Services, Interconnection
Public Switched Telephone Network
Rulemaking, Notice of Proposed

Notice of Proposed Rule Making adopted to amend Part 90 by eliminating geographic and other restrictions imposed on interconnection of private land mobile stations with public switched telephone network below 800 MHz.
—*Amendment of Part 90*
PR Docket No. 84-414

FCC 84-171

BEFORE THE
FEDERAL COMMUNICATIONS COMMISSION

WASHINGTON, D.C. 20554

In the Matter of	
Amendment of Part 90 of the Commission's Rules to Prescribe Policies and Regulations to Govern the Interconnection of Private Land Mobile Radio Systems with the Public Switched Telephone Network Below 800 MHz	PR Docket No. 84-414

NOTICE OF PROPOSED RULE MAKING

Adopted: April 26, 1984; Released: June 12, 1984

BY THE COMMISSION:

Background

1. In 1978, the Commission issued a *First Report and Order* establishing rules to govern the interconnection of private land mobile radio systems with the public switched telephone network (PSTN) in the bands below 800 MHz.[1] Interim rules were applied to the bands above 800 MHz. The rules for interconnection below 800 MHz included: (1) geographic limitations on all interconnected systems within 75 miles of 25 of the nation's largest urban areas in the Automobile Emergency, Business,

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[1] *First Report and Order*, Docket No. 20846, 69 FCC 2d 1831 (1978), 43 Fed. Reg. 38,396 (August 2, 1978).

Special Emergency, Special Industrial and Taxicab Radio Services[2]; (2) special provisions covering the use of internal systems of communication in conjunction with the operation of private land mobile stations; (3) special provisions governing the use of dial-up telephone circuits to control land mobile radio stations; and (4) special requirements pertaining to the operation of interconnected radio stations, such as channel monitoring by the control operator, and time limitations on the length interconnected communications. A limitation was also placed on the length of initial access transmissions to land mobile stations from the PSTN. Three seconds were allowed to alert a mobile station operator at which time the transmitter would shut down. The mobile operator then had to reinitiate the communication. In simplex operations, transmissions were limited to 30 seconds prior to shut down. Timers were required to be installed at all base station transmitters which would limit interconnected communications to three minutes, prior to system shut down. We also issued separate regulations for paging and two-way voice and data communications.[3] Finally, we permitted licensees of existing interconnected systems to continue using them until January 1, 1984. On or prior to this date, however, all of these systems were to be brought into compliance with the rules we adopted in the *First Report and Order*.[4]

2. In 1982, we released our *Second Report and Order* adopting final rules to govern the interconnection of 800 MHz stations. After reviewing the entire history of this proceeding and re-affirming that interconnection in the private land mobile services was in the public interest,[5] we adopted rules which were much less restrictive than those adopted in the *First Report and Order.*[6] We concluded that eligibles in the private services should have "freedom to use state-of-the-art equipment and systems design" and that their use of their radio systems in an interconnected

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[2] *Id.* at paragraph 4.

[3] *Id.* at paragraph 5; *See, Memorandum Opinion and Order,* Docket No. 20846, __________ FCC__________, for more detailed analysis of these rules.

[4] *Id.* Appendix B, § 90.951(f).

[5] "Modern society could not function as it does without telephone communications, and information transmitted over private radio facilities often originates from a telephone and *vice versa.* Without interconnection, transfer of such information between radio and telephone facilities can only be accomplished orally through a third party, with the possibility of error. For this reason we concluded in *Carterfone,* 13 FCC 2d 420 (1968), that interconnection of private radio and telephone facilities is in the public interest, and it increases the utility both of radio facilities and the telephone facilities involved. Even parties opposing permissive interconnection herein do not deny this. Their main concern, rather, relates to the way in which interconnection of private systems to telephone facilities should be accomplished . . . In sum the need for interconnection at 800 MHz is clear." *Second Report and Order,* Docket No. 20846, 89 FCC 2d 741 (1982) at paragraph 42.

[6] *Second Report and Order, supra,* at paragraph 37.

mode should not be "fettered unnecessarily by artificial limitations and restrictions."[7] We decided not to adopt any geographical, radio service or time limit restrictions for the bands above 800 MHz.[8] We also removed the interim restrictions at 800 MHz which required interconnection to take place at a licensee's premises and which prohibited interconnection at a common point by a group of licensees.[9] In so doing, we concluded the effect of this rule was "unnecessarily inefficient" and denied private radio licensees and users alternatives such as non-profit sharing of telephone service and interconnection equipment which "may be economically more desirable." Interconnection was permitted in a manual or automatic mode and there were no time limits imposed on the length of communications. Finally, there were no requirements placed on licensees to employ specially designed channel monitoring equipment.[10] However, Specialized Mobile Radio System (SMRS) base station licensees were prohibited from making arrangements for the telephone service. These changes in the regulatory structure were made to promote an increase in the utility of private land mobile systems by facilitating information flow[11] and maximizing the consumer choices of radio users, thereby serving the public interest as a whole.[12]

3. Petitions were received to reconsider various aspects of the *Second Report and Order*. On reconsideration, the *Second Report and Order* was modified by a *Memorandum Opinion and Order* which also addressed the effect of the "The Communications Amendments Act of 1982" on the rules governing the interconnection of private land mobile radio transmitters licensed to operate at 800 MHz.[13] The *Memorandum Opinion and Order* further amended the rules to allow more flexibility for licensees of shared stations to obtain telephone service individually, jointly, or through third parties (including SMRS base station licensees) in recognition that this could facilitate the process to the betterment of the

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[7] *Id.*

[8] *Id.*, at paragraph 50.

[9] *Id.*, at paragraph 49.

[10] *Id.*, at paragraph 50.

[11] *Id.*, at paragraph 39.

[12] *Id.*, at paragraph 43.

[13] *Memorandum Opinion and Order*, Docket No. 20846, released May 27, 1983, 48 Fed. Reg. 29,512 (June 27, 1983). The *Memorandum Opinion and Order* addressed Petitions for Reconsideration of the *Second Report and Order* by Telocator network of America and the National Association of Regulatory Commissioners. The *Memorandum Opinion and Order* has been appealed by *Telocator Network of America* v. *FCC & USA*, No. 83-1905, and *People of the State of California and the Public Utilities Commission of the State of California, et. al.* v. *FCC & USA*, No. 83-1791. *See*, "The Communications Amendments Act of 1982", P.L. 97-259, 96 STAT 1087, September 13, 1982; see Section 120 (Section 331 of the Communications Act of 1934, as amended, is codified at 47 U.S.C. 332).

general public, as long as this telephone service was provided on a non-profit, non-resale basis. In addition, we rejected arguments that the interconnection device or "patch" is part of the telephone service and should be provided by an authorized carrier. We determined that the patch is simply an unlicensed piece of electronic gear broadly manufactured and available from many sources and there was no public interest reason for regulating the manner in which it was obtained.[14] We therefore allowed licensees to secure the device in the open market under whatever terms they wished. This *Second Report and Order* did not, however, alter the restrictions enumerated in the *First Report and Order* on systems operating below 800 MHz.

4. As already pointed out, in the *First Report and Order* we permitted licensees of existing interconnected systems operating below 800 MHz to continue to use them under the rules which applied prior to 1978 until January 1, 1984. By January 1, 1984, all of these systems were to be brought into compliance with the rules adopted in 1978. However, in view of the decisions reached in our *Second Report and Order*, and our action noted here proposing new rules to govern interconnection below 800 MHz, we released an *Order* on December 30, 1983, suspending the January 1, 1984 compliance date for the existing interconnected systems operating below 800 MHz.[15] We are now reviewing all of our below 800 MHz interconnection rules and policies.

Proposal

5. In view of the new legislation addressing the use of interconnection by private land mobile licensees, and recent technological developments facilitating the use of interconnection, we are initiating this proceeding in order to liberalize our rules governing interconnection below 800 MHz as we have done above 800 MHz.[16] By reducing the restrictions imposed on interconnected systems below 800 MHz, we intend to encourage businesses to more effectively and efficiently utilize their private land mobile communications systems, thus promoting the public interest as a whole in better, more cost effective and efficient private communications systems.

6. For example, in our *first Report and Order*, we placed geographic limitations on the use of interconnected systems below 800 MHz in the Special Emergency, Business, Automobile Emergency, Special Industrial and Taxicab Radio Services. Interconnection is only permitted in these services if the base station site of the interconnected facility is located at least 75 miles from the centers of 25 urbanized areas identified in the

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[14] *Memorandum Opinion and Order, supra,* at paragraph 16.

[15] *Order,* Docket No. 20846, 49 Fed. Reg. 1728, (January 13, 1984).

[16] *Second Report and Order, supra; Memorandum Opinion and Order, supra.*

rules.[17]

7. By way of contrast no geographic limitations were imposed on interconnection in the bands above 800 MHz.[18] Instead interconnection was made secondary to dispatch operations. This approach sought to avoid the limitations inherent in absolute preclusion of interconnection while at the same time seeking a method of assuring the primacy of dispatching. This approach has thus far worked at 800 MHz and we now propose to apply it below 800 MHz, although we recognize that channel sharing is much more prevalent below 800 MHz and thus may pose some additional complications. Commentors are therefore urged to consider carefully our proposal to eliminate geographic limitations in the bands below 800 MHz.

8. The restrictions on transmission time for interconnected systems were also not imposed in the bands above 800 MHz.[19] While timers were required to be installed at the base station transmitters below 800 MHz in order to facilitate disconnection, this rule was eliminated above 800 MHz by our *Second Report and Order* as being an unnecessary encumbrance on the utility of the system to the licensee.[20] We now propose to eliminate these requirements below 800 MHz. This would include the three second limit on initial access tones and the three minute limitation on interconnected communications. While we are aware that there is a risk of increased channel occupancy due to longer transmission times we believe that this problem is controllable through mutual cooperation and coordination among licensees and that the increase in flexibility for interconnected systems will benefit private licensees and the public as a whole. Our rules give us broad discretion to impose solutions, should cooperation not work. See 47 C.F.R. § 90.173.

9. Additionally we propose to eliminate the equipment limitations imposed on transmissions made from the PSTN in frequencies below 800 MHz. This would include the requirement that automatic monitoring equipment be installed at the base station to prevent activation of the transmitter when signals of co-channel stations are present. All of these actions we believe would further the objectives of both Congress and the Commission in removing unnecessary impediments to the use of private interconnected systems, and would encourage the use of new state-of-the-

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[17] *First Report and Order, supra,* Appendix B, 47 C.F.R. § 89.951(c). This section is now contained in 47 C.F.R. § 90.477(d)(3). This section has been amended to 47 C.F.R. § 90.477(d)(1), *Order,* Docket No.__________, released__________. This limitation did not apply to medical emergency systems licensed in the Special Emergency Radio Service in the 450-470 MHz bands.

[18] *Second Report and Order, supra* at pps. 10 and 15.

[19] *First Report and Order, supra,* Appendix B, 47 C.F.R. § 89.954. This section is now contained in 47 C.F.R. § 90.483.

[20] *Second Report and Order, supra,* Appendix B, 47 C.F.R. § 90.483.

art technologies and equipment. It is also consistent with the Commission's mandate to promote rapid and efficient communications and to encourage the larger and more efficient use of radio.[21]

10. When we amended the rules, in our *Second Report and Order*, to provide more flexibility for interconnection in the bands above 800 MHz, we concluded that the effect of the rules restricting common point interconnection was unnecessarily inefficient and denied private radio licensees and users alternatives which may be economically more desirable. We therefore eliminated the restriction confining 800 MHz interconnection to the licensees' premises, and allowed it at common locations.[22] On reconsideration of the *second Report and Order*, we amended our rules to conform to "The Communications Amendments Act of 1982," and allowed private licensees to obtain telephone service from any duly authorized carrier either individually or jointly on a non-profit cooperative basis. We also permitted third parties to act as ordering agents in obtaining telephone service for licensees and users if the service was obtained on a non-profit, non-resale basis.[23] We now propose to eliminate the restrictions on common point interconnection by private licensees below 800 MHz, as long as the telephone service is provided on a non-profit, cost-shared basis.

11. In addition, we are proposing an amendment to 47 C.F.R. § 90.476 to clarify that stations operating on 12.5 kHz offset frequencies in the 450-470 MHz band or on the frequencies set forth in § 90.75 with the limitations (c)(4) and (c)(36) attached, are exempt from the interconnect provisions of § 90.477 and § 90.483. We are also proposing to revise our definition of interconnection in 47 C.F.R. § 90.7, in order to conform to the language contained in the new legislation.

12. In summary, we propose to make the following amendments to our rules: (1) eliminate the geographic restrictions imposed below 800 MHz; (2) eliminate the time, signal and equipment limitations below 800 MHz; (3) eliminate the restrictions on common point interconnection below 800 MHz, as long as the telephone service is provided on a non-profit, cost-shared basis; (4) amend and clarify 47 C.F.R. § 90.476; and (5) revise the definition of interconnection in 47 C.F.R. § 90.7.

Initial Regulatory Flexibility Analysis

13. The Commission believes that its rules governing the interconnection of private land mobile radio systems with the PSTN below 800 MHz should be revised to be consistent with the rules governing interconnec-

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[21] 47 U.S.C. §§ 151 303, 332(a).

[22] *Second Report and Order, supra*, at paragraph 49.

[23] *Memorandum Opinion and Order, supra*, at paragraph 15.

tion above 800 MHz and the intent of "The Communications Amendments Act of 1982."

14. The Commission seeks to pursue its objective to promote rapid and efficient communications and encourage larger and more effective use of radio by enhancing the ability of small and large businesses to employ interconnection in their private communications systems in furtherance of the public interest.

15. The action proposed is in furtherance of Sections 4(i), 303(g), 332(a) and 403 of "The Communications Act of 1934, as amended".

16. This action may impact both small and large businesses, licensees, and users since it will allow for more liberal use of interconnection between private land mobile radio stations licensed to operate below 800 MHz with the PSTN. Since private radio communications which are interconnected with the PSTN may be longer than typical dispatch communications, the channels may be more congested than they would be in the absence of interconnection. The possibility of increased channel congestion must be balanced against the increased flexibility private licensees will have in meeting their communications needs. Therefore, we may anticipate both favorable and unfavorable impacts due to the relaxation of the restrictions on interconnection of private land mobile radio systems below 800 MHz. On balance, we believe the favorable impacts greatly outweigh those that may be unfavorable. However, we invite comments from interested parties which specifically address this initial regulatory flexibility analysis.

17. There are no federal rules which overlap, duplicate or conflict with these rules.

18. There are no significant alternatives minimizing the impact on small entities and consistent with the stated objective. The *Status quo* would constitute a continuing burden.

Procedural Matters

19. For purposes of this non-restricted notice and comment rule-making proceeding, members of the public are advised that *ex parte* contacts are permitted from the time the Commission adopts a notice of proposed rule making until the time a public notice is issued stating that a substantive disposition of the matter is to be considered at a forthcoming meeting or until a final order disposing of the matter is adopted by the Commission, whichever is earlier. In general, an *ex parte* presentation is any written or oral communication (other than formal written comments/pleadings and formal oral arguments) between a person outside the Commission and a Commissioner or a member of the Commission's staff which addresses the merits of the proceeding. Any person who submits a written *ex parte* presentation must serve a copy of that presentation on the Commission's Secretary for inclusion in the public file. Any person

who makes an oral *ex parte* presentation must serve a copy of that presentation on the Commission's Secretary for inclusion in the public file. Any person who makes an oral *ex parte* presentation addressing matters not fully covered in any previously filed written comments for the proceeding, must prepare a written summary of that presentation. On the day of that oral presentation, a written summary must be served on the Commission's Secretary for inclusion in the public file, with a copy to the Commission official receiving the oral presentation. Each *ex parte* presentation described above must state on its face that the Secretary has been served, and must also state by docket number the proceeding to which it relates. See generally, Section 1.1231 of the Commission's Rules, 47 C.F.R. § 1.1231.

20. Authority for issuance of this *Notice of Proposed Rule Making* is contained in Sections 4(i) and 303(r) of the Communications Act of 1934, as amended, 47 U.S.C. 154(i) and 303(r). Pursuant to the procedures set out in Section 1.415 of the Commission's Rules, 47 C.F.R. Section 1.415, interested persons may file comments on or before July 19, 1984, and reply comments on or before August 3, 1984. All relevant and timely comments will be considered by the Commission before final action is taken in this proceeding. In reaching its decision, the Commission may take into consideration information and ideas not contained in the comments, provided that the fact of the Commission's reliance on such information is noted in the Report and Order.

21. In accordance with the provisions of Section 1.419 of the Commission's Rules, 47 C.F.R. Section 1.419, formal participants shall file an original and five copies of their comments and other materials. Participants wishing each Commissioner to have a personal copy of their comments should file an original and 11 copies. Members of the general public who wish to express their interest by participating informally may do so by submitting one copy. All comments are given the same consideration, regardless of the number of copies submitted. All documents will be available for public inspection during regular business hours in the Commission's Public Reference Room at its headquarters at 1919 M Street, N.W., Washington, D.C.

22. For further information concerning this rule making contact Nia Chirigos Cresham of the Rules Branch, Land Mobile and Microwave Division, Private Radio Bureau, Federal Communications Commission, Washington, D.C. 20554, (202) 634-2443.

FEDERAL COMMUNICATIONS COMMISSION

WILLIAM J. TRICARICO, *Secretary*

APPENDIX

Part 90 of Chapter I of Title 47 of the Code of Federal Regulations is proposed to be amended as follows:

1. Part 90 - Private Land Mobile Radio Services Section 90.7 is amended to read as follows:
§ 90.7 Definitions

* * * * *

Interconnection. Connection through automatic or manual means, of private land mobile radio stations with the facilities of the public switched telephone network to permit the transmission of messages or signals between points in the wire line or radio network of a public telephone company and persons served by private land mobile radio stations. Wire line or radio circuits or links furnished by common carriers used by licensees or other authorized persons for transmitter control (including dial-up transmitter control circuits) or used as an integral part of an authorized, private internal system of communication or as an integral part of dispatch point circuits in a private land mobile radio station are not interconnected for purposes of this Rule Part.

2. Section 90.476 is revised to read as follows:

§ 90.476 Interconnection of fixed stations and certain mobile stations.

(a) Fixed stations and mobile stations used to provide the functions of fixed stations pursuant to the provisions of paragraphs (c)(4) and (c)(36) of § 90.75 and § 90.267 are not subject to the interconnection provisions of § 90.477 and § 90.483 and may be interconnected with the facilities of common carriers, subject to applicable tariffs.

(b) Mobile stations used to provide the functions of base and mobile relay stations pursuant to the provisions of paragraphs (c)(4) and (c)(36) of § 90.75 and § 90.267 are not subject to the provisions of paragraph (d)(3) of § 90.477 and may be interconnected with the facilities of common carriers, subject to applicable tariffs and subject to the provisions of paragraphs (d)(1), (d)(2), and (e) of § 90.477 and § 90.483.

3. In Section 90.477, paragraph (b) is amended, paragraph (d) is deleted and removed, and paragraph (e) is redesignated paragraph (d).

§ 90.477 Interconnected Systems

* * * * *

(b) Interconnection with the public switched telephone network is authorized under the following conditions:

* * * * *

4. Section 90.483 is deleted and removed in its entirety.

Multipoint Distribution Service
Technical Standards

First Report and Order adopted regarding new technical rules for Multipoint Distribution Service. Rules are reasonable, easy to understand and apply, and are in the public interest.
—*Amendment of Parts 21, 74 and 94*
Gen. Docket No. 80-113

FCC 84-175

BEFORE THE
FEDERAL COMMUNICATIONS COMMISSION
WASHINGTON, D.C. 20554

In the Matter of	
Amendment of Parts 21, 74 and 94 of the Commission Rules and Regulations with regard to the technical requirements applicable to the Multipoint Distribution Service, the Instructional Television Fixed Service and the Private Operational-Fixed Microwave Service (OFS).	General Docket No. 80-113
Amendment of Part 21 of the Commission's Rules to make the prior coordination requirement of Subsection 21.100(d) applicable to Multipoint Distribution Service.	RM-3232
Amendment of Part 21 of the Commission's Rules to define the Interference Studies Required by Subsection 21.902(c) and to Establish Minimum Criteria for the Acceptance of Newly Filed Applications Proposing the Construction of New MDS Stations or the Amendment of Existing MDS Authorizations.	RM-3537

FIRST REPORT AND ORDER

Adopted: April 26, 1984; Released: June 14, 1984

BY THE COMMISSION:

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I. Introduction

1. On April 24, 1980, the Commission released a Notice of Inquiry and Proposed Rulemaking in this Docket in which it proposed changes to Subpart K of Part 21 of the Rules pertaining to the Multipoint Distribution Service (MDS).[1] An inquiry was made concerning the possible application of the proposed rules to the 2500-2690 MHz band that the Commission had proposed be shared by the MDS, the Instructional Television Fixed Service (ITFS) and the Private Operational Fixed

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[1] Notice of Inquiry and Proposed Rulemaking in General Docket No. 80-113, FCC 80-137, 45 FR 29350 (1980) (hereinafter cited as *Notice*).

Microwave Service (OFS).[2]

2. The ITFS channels are licensed primarily to educational institutions that use them to transmit instructional television material to remote locations such as schools, hospitals and industrial plants. The MDS channels are used primarily for the distribution of premium television to hotels, motels, and single family and multiunit residences.

3. Approximately 70 entities submitted comments and reply comments in response to the *Notice*. On February 10, 1982, Microband Corporation of America (Microband) submitted a 3 volume proposal to create what it termed a "wireless cable system" using frequencies in the 2500-2690 MHz band.[3] Microband simultaneously submitted a "Motion for Acceptance of Additional Comments" requesting that its proposal be accepted as additional comments in this proceeding and in the companion proceeding in General Docket No. 80-112, which was granted.[4] Approximately 150 reply comments were received in response to the Microband proposal.[5]

4. On May 26, 1983, the Commission adopted a Report and Order in the companion proceeding in General Docket No. 80-112 reallocating 8 channels in the 2500-2690 MHz band from the ITFS to the MDS. The channels reallocated were the four channels in the "E" Group (E_1, 2596-2602 MHz; E_2, 2608-2614 MHz; E_3, 2620-2626 MHz and E_4, 2632-2638 MHz) and the four channels in the "F" Group (F_1, 2602-2608 MHz; F_2, 2614-2620 MHz; F_3, 2626-2632 MHz and F_4, 2638-2644 MHz).[6]

5. Before the adoption of the *Multichannel Order*, the MDS was allocated two channels. In the 50 areas listed in Section 21.901(c) of the Rules, 47 C.F.R. § 21.901(c), the channels are each 6 MHz wide and are designated channel 1 (2150-2156 MHz) and channel 2 (2156-2162 MHz). In all other areas, channel 1 is available but channel 2 is replaced by channel 2A that is only 4 MHz wide (2156-2160 MHz). Only channel 1 and channel 2 have sufficient bandwidth to transmit a standard television signal (6 MHz of bandwidth is required). Prior to the adoption of the *Multichannel Order*, there were twenty-eight, 6 MHz channels available for ITFS use. As as a result of the reallocation, the ITFS is now authorized twenty, 6 MHz channels in all markets. In addition, all ITFS applicants for and

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[2] Notice of Inquiry, Proposed Rulemaking and Order in General Docket No. 80-112, FCC 80-136, 45 FR 29323 (released May 2, 1980) (hereinafter cited as *Companion Notice*).

[3] Proposal of Microband Corporation of America, General Docket Nos. 80-112 and 80-113 (February 10, 1982) (hereinafter cited as *Microband Proposal*).

[4] Order Accepting Additional Comments, 47 Fed. Reg. 18,932 (1982).

[5] A list of all those submitting comments in this proceeding is contained in Appendix A. This list includes all comments both formal and informal. Comments that were not filed in a timely manner are hereby accepted as informal comments. Some entities submitted more than one set of comments and hence are listed more than once.

[6] Report and Order, General Docket No. 80-112, 94 F.C.C. 2d 1203 (1983) (hereinafter cited as *Multichannel Order*).

licensees and permittees of the channels reallocated to the MDS as of the date of reallocation are grandfathered. Thus, as a result of the reallocation, the MDS is now authorized ten, 6 MHz channels in the fifty metropolitan areas where two, 6 MHz channels were previously available and nine, 6 MHz channel and one, 4 MHz channel in all other areas. In both situations, the reallocated channels are subject to the rights of grandfathered ITFS users.[7]

6. In the *Notice*, we observed the MDS technical rules were adopted in 1974[8] when there were no MDS stations in operation. As the service has become operational, a number of technical problems have been encountered by licensees in the operation of their stations and by the Commission's staff in processing the large number of MDS applications that were not fully anticipated by the technical rules. One source of difficulty encountered both by those operating MDS stations and those processing applications was actual or anticipated electrical interference between stations operating on the same channel in adjacent areas or between stations on adjacent channels operating in the same areas. When we adopted the existing rules, we depended on informal coordination between those involved to anticipate and resolve interference conflicts. This informal procedure has not been successful because we have experienced a large number of circumstances in which proposals for construction of new stations or modification of existing stations are met with formal petitions alleging electrical interference.[9] We therefore decided there was a need to establish technical rules to resolve these conflicts. It was also our intention to establish criteria that would guide us in locating new stations.

7. At the time of the adoption of the *Notice*, a similar set of problems did not exist in either of ITFS or the OFS. In the ITFS, this was because the larger number of channels available allowed channel assignments to be made so that very little adjacent area, cochannel operation or same area, adjacent channel operation was authorized. In the OFS, these problems had not occurred because the channels assigned to that service were very lightly used. We recognized, however, that if we decided to reallocate some of the ITFS channels to the OFS and/or the MDS, similar problems might occur in these services. For this reason, we asked for comments on the feasibility of applying the proposed new technical rules to all services sharing the band.

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[7] A complete description of the reallocation plan is contained in the Multichannel Order. *Multichannel Order*, at 1248.

[8] Report and Order, Docket No. 19493, 45 F.C.C. 2d 616 (1974), *recon.*, 57 F.C.C. 2d 301 (1975).

[9] *Notice*, at para. 3.

II. The Proposed Rules

8. In the *Notice*, we proposed several new rules for the MDS to govern matters relating to interference. The proposed rules concerned cochannel and adjacent channel interference standards, a standard receiving antenna, the definition of a protected service area, transmitting antenna height and location standards, and adjacent channel transmitter location standards. In this section, we will address each of these matters. In the Notice of Inquiry portion of the *Notice*, we requested comment on several issues, including the appropriateness of applying the proposed MDS rules to the ITFS and OFS users of the 2500-2690 MHz band. We will discuss the applicability of each of the proposed MDS rules to the ITFS. Also, notwithstanding the Commission's decision to prohibit use of the H group, (OFS) channels for video entertainment services until August 1, 1985,[10] the OFS channels ultimately may be used in part for delivery of video entertainment programming. Therefore, some of the same considerations raised with respect to MDS technical standards may be made generally applicable to OFS.

A. Interference Standards

1. Cochannel Interference:

9. Section 21.902(c) of the Commission's Rules, 47 C.F.R. § 21.902(c), requires that all MDS applications include an analysis of the potential for harmful interference to all existing and previously proposed cochannel or adjacent channel operations with transmitters located within 50 miles of the applicant's proposed transmitter location. We have received many petitions to deny containing claims that a newly proposed cochannel station would cause harmful interference to the petitioner's stations, but often the petitions do not state what constitutes harmful cochannel interference. Similarly, the existing MDS rules do not contain a definition of harmful cochannel interference. In the *Notice*, we proposed that an undesired cochannel signal be deemed to be causing harmful cochannel interference when the ratio of the desired signal to the undesired cochannel signal was less than 45 dB at the output of a standard receiving antenna oriented to receive the maximum desired signal.

10. Our choice of 45 dB as the proposed standard was based both on previous Commission determinations and generally accepted international standards. Since 1952 the Commission has recognized, that for Grade B service with no frequency offset, (see paragraphs 14-18 below for a discussion of the use of frequency offset techniques to reduce cochannel

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[10] Private Operational-Fixed Microwave Service; Various Methods of Transmiting Problem Material to Hotels and Similar Locations and; Use of the Business Radio Service for the Transmission of Motion Pictures or Other Program Material to Hotels or Other Similar Points, 48 Fed. Reg. 32,576, 32,583 (July 18, 1983). *See also*, 47 C.F.R. § 94.61(b), n.20.

interference problems) a signal that is within 45 dB of the desired signal is an interfering signal.[11] This standard was reiterated by the Commission in the Low Power Television and VHF "Drop-In" Rulemaking Proposals.[12] It is also the standard used by the CCIR.[13]

11. The 45 dB ratio was established on the basis of tests conducted by the Television Allocation Study Organization (TASO) in which actual television pictures, both with and without cochannel interference, were compared by a panel of viewers.[14] When the ratio of the desired signal to the undesired signal was 45 dB, the picture observed was judged to be "passable" or better by 60% of those viewing the picture.[15] Passable refers to one of six television picture grades used by the TASO to rate the quality of television pictures. A passable picture is defined as one in which the interference is perceptible but not objectionable. A picture of this quality is designated a TASO Grade 3 picture.[16] The next higher grade picture, a TASO Grade 2 or fine, is obtained when the ratio is in the 50 to 55 dB range.

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[11] Television Assignments, 41 F.C.C. 142, 177 (1951).

[12] TV Translators and Low Power-Stations, 87 F.C.C. 2d 610, 613 (1981), Table of TV Channel Allotments, 83 F.C.C. 2d 51; 93 (1980).

[13] *Ratio of Wanted-to-Unwanted Signal for AM Vestigial Sideband Color Television Systems,* Report 306-4, Recommendations and Reports of the CCIR, 1982 Volume XI, Part 1, Broadcasting Service (television) 225, (1982)(hereinafter cited as CCIR Report 306-4). The CCIR recommendation of 45 dB is just *tolerable* interference that occurs between 1% and 10% of the time. An additional 10 dB of protection would be required to provide a picture with just *perceptible* interference. The latter is the recommended standard where both the wanted and unwanted signals are substantially non-fading.

[14] Engineering Aspects of Television Allocations, Report of the Television Allocations Study Organization to the Federal Communications Commission, 535-537, (March 16, 1959) (hereinafter cited as TASO *Report*). *See also*, Dean, at *Measurements of the Subjective Effects of Interference in Television Reception*, 48 Proceedings of the IRE 1035 (June 1960). (This is a detailed summary of the TASO tests of the effects of interference on perceived television picture quality).

[15] *Id.* at 536 (Figure 42).

[16] The six TASO grades and their description are:

Grade 1, EXCELLENT. The picture is of extremely high quality, as good as you could desire.

Grade 2, FINE. The picture is of high quality providing enjoyable viewing. Interference is perceptible.

Grade 3, PASSABLE. The picture is of acceptable quality. Interference is not objectionable.

Grade 4, MARGINAL. The picture is poor in quality and you wish you could improve it. Interference is somewhat objectionable.

Grade 5, INFERIOR. The picture is very poor but you could watch it. Definitely objectionable interference is present.

Grade 6, UNUSABLE. The picture is so bad that you could not watch it. *Id.* at 506.

12. Because signal strength received is dependent on both a transmitting antenna's proximity and power, defining what constitutes an interfering signal determines how close together stations can be located or alternatively, how much power stations can radiate. Increasing the ratio to 50 dB would mean that a new applicant would be required to locate its transmitter further from an existing station and/or to radiate less power. Since new stations would be required to locate further from existing stations, there would be fewer opportunities for new stations to be licensed. Of course, receiving sites located further from the existing station would be less likely to experience harmful cochannel interference.

13. On the other hand, reducing the ratio below 45 dB would mean new stations could be located closer to existing stations and hence there would be more stations available. It would also mean that some of those receiving service from the existing station would be receiving a level of service inferior to that received under the 45 dB standard.

14. One commenter, John F. X. Browne, suggested that 45 dB was not sufficient protection and that we should adopt 50 dB as the standard. Mr. Browne claimed the additional protection is needed to combat the "low frequency beat" that is typical of cochannel interference. He further suggested that these deleterious effects can be ameliorated by using "exotic methods such as precisely controlled frequency offsets."[17] The effect of cochannel interference referred to by Mr. Browne is that which occurs when cochannel stations are operating on their nominal frequencies and the ratio of the desired channel signal to the undesired channel signal is less than 45 dB at the television receiver. The interference shows up as a slowly moving horizontal bar superimposed on the television picture. The width of the bar and the speed at which it moves are determined by the difference in frequency between the visual carrier of the desired station and the visual carrier of the undesired station. This difference, which is apparently the low frequency referred to by Mr. Browne, is commonly called the frequency offset between the two stations.

15. The Commission has long been aware that controlling the offset between cochannel transmitters located in adjacent areas increases the level of undesired signal that can be tolerated by approximately 17 dB.[18] That is when the frequency offset between the transmitters is maintained at 10 KHz ± 1 KHz a passable television picture (TASO Grade 3) will be available where the ratio of the desired signal to the undesired signal is 28 dB as contracted with the 45 dB ratio required when the offset is not controlled. If the offset is maintained within ± 2 Hz (this is called a

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[17] Comments of John F. X. Browne, General Docket No. 80-113, 2-3 (September 2, 1980)(hereinafter cited as Browne Comments).

[18] Table of TV Channel Allotments, *supra* note 12, at 93.

"precise" frequency offset), the required ratio is reduced another 6 dB to 22 dB.[19]

16. Because of the higher frequencies used for MDS transmission (also ITFS) using frequency offset techniques is technically more difficult than at either VHF or UHF television frequencies. For this reason we have not required closely spaced MDS stations (or ITFS stations) to use this technique to reduce the possibility of cochannel interference problems. We have, however, always required that all applicants and licensees "make exceptional efforts to avoid harmful interference to other users and to avoid blocking ... cochannel use in nearby cities." 47 C.F.R. § 21.902(a). In the first instance in which we authorized the MDS station to increase its power from 10 watts to 100 watts, we recognized that using frequency offset techniques would reduce the required desired to undesired signal ratio by at least 16 dB. Because of this, that grant was subject to the condition that the licensee use frequency offset techniques if a station were subsequently authorized in an adjacent area.[20]

17. Thus, we conclude that, although Mr. Browne is correct in stating that frequency offset techniques will reduce the effects of cochannel interference, we do not agree stations not using these techniques require more than the 45 dB of protection we proposed.

18. Another commenter, Cox Cable Communications, Inc. (CCCI) suggested that we use 55 dB rather than 45 dB because our calculations "do not take into consideration reflections, refractions, ducting, ground waves and other deleterious phenomena that can only be properly evaluated while a system is in actual operation."[21] These phenomena do produce signal levels in practice that may vary considerably from the levels that would be predicted by standard propagation calculations. In some situations, the desired signal will be affected more than the undesired signal; in other situations the undesired signal will be affected more. It is more likely, however, that the undesired signal, which generally travels over a much longer propagation path, will be affected by such phenomena.

19. Another commenter, R. L. Vega, suggested that the protection ratio proposed was too high and that 40 dB was adequate. Mr. Vega claimed the lower protection ratio was justified because the Commission analysis did not consider significant propagation factors that reduce the

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[19] Kalagian, G.S., A Review of the Technical Planning Factors for VHF Television Service, FCC/OST Report RS77-01, 12 (March 1, 1977). National Technical Information Service No. 266341.

[20] Micro-TV, Inc., 54 F.C.C. 2d 100, 101-102 (1975).

[21] Comments of Cox Cable Communications, Inc. General Docket No. 80-113, 2-3 (September 2, 1980)(hereinafter cited as CCCI Comments).

level of the undesired signal received.[22] These are apparently the same factors cited by CCCI to support its argument that a higher ratio should be used. Reducing the ratio would allow stations to be located closer together thereby reducing what Mr. Vega refers to as "white" areas (this refers to areas between stations that cannot be served by either station). Of course locating the stations closer together also will increase the possibility of cochannel interference. In any case, what CCCI and Mr. Vega are really arguing is not that the proposed ratio is incorrect but rather that the methods used to calculate it are not always accurate. We agree; however, we do not believe that we should adopt a different standard in an attempt to account for unquantifiable propagation phenomena. Neither CCCI nor Mr. Vega offered any analytical or experimental data to support the suggested changes in the standard. We believe that 45 dB is a reasonable compromise between insuring that a licensee has an adequate level of protection and insuring there are sufficient stations to serve the public.

20. Several members of the ITFS community suggested that because the proposed standard was based on entertainment programming it was not necessarily appropriate for other types of programming.[23] Their claim was that programming material that contains more detail requires a higher level of protection than ordinary entertainment programming. They cited schematic diagrams, mathematical formulas, and detailed textual information as examples of material that would require more protection against cochannel interference than entertainment programming. We are aware that the level of cochannel interference that viewers will find unacceptable is dependent upon the nature of the material being transmitted. In the TASO tests, comparisons were made between a scene with relatively little detail and one with considerable detail; the results of these tests showed that for the same interference level, scenes with more detail are more likely to be perceived as having unacceptable levels of interference than are scenes with less detail.[24]

21. Because our purpose in adopting a definition of what constitutes cochannel interference is to have a basis for determining the separation between cochannel stations, it is not clear that we need to use the same standard in every situation. If it can be shown by an applicant or a licensee that the programming being transmitted is of a type that requires a level of protection greater than that afforded by the standard we are adopting,

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[22] Comments of Richard L. Vega, Northstar Communications, Elborn MDS Company, San Bernadino MDS Company, Angeles MDS Company, and Microwave Communications Systems, Inc., General Docket No. 80-113, 4 (September 2, 1980)(hereinafter cited as Vega Comments).

[23] *See, e.g.*, Comments of Leland Stanford Junior University, General Docket No. 80-113, Attachment, at 3 (September 2, 1980)(hereinafter cited as Stanford Comments).

[24] *TASO Report, supra* note 14, at 537.

we can use a standard appropriate for the situation. In such a case, it would be the responsibility of the licensee to show clearly that the 45 dB ratio was not sufficient protection for the service being provided. Such a showing would consist of test data similar to that provided in the original TASO report.

22. Several commenters noted that we only considered cochannel interference in situations where both channels were being used to transmit conventional television signals and that we failed to consider the susceptibility of a television signal to cochannel interference caused by a channel carrying digital information.[25] The interference that would result from the transmission of digital data is dependent upon the data rate being transmitted, the modulation method employed, and other characteristics of the digital data system as well as the relative powers of the signals involved. At this time, there is virtually no use of either the 2150-2162 MHz band or the 2500-2690 MHz bands for the transmission of digitized information. We received neither theoretical nor empirical data that could be used to predict the strength of a digitally modulated signal that might cause harmful interference. For these reasons, we do not believe we should consider developing digital vs. video interference standards at this time.

23. On the basis of this analysis, we have concluded that the proposed 45 dB cochannel interference standard represents a reasonable compromise between the need to insure that existing MDS operations do not experience harmful interference from new stations and the need to not restrict unnecessarily the construction of new facilities that will provide service to areas not now being served. We have also concluded that this standard should be used to resolve cochannel interference standards between multichannel MDS stations and the "grandfathered" operators of E-group and F-group ITFS facilities. As noted above, we have received no evidence that ITFS operations need a higher level of protection than do MDS operations. We will also use this standard to resolve any cochannel interference issues involving only ITFS stations. Thus, we are amending the MDS rules to make the proposed interference standard the permanent standard. We are not, at this time, amending Part 74 to make this standard a part of the ITFS rules.

2. Adjacent Channel Interference

24. Adjacent channel interference is interference that occurs as a result of the operation of either an upper adjacent channel transmitter or a lower adjacent channel transmitter in the vicinity of the desired channel system. Adjacent channel interference would not exist if reception

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[25] *See, e.g.* Comments of the Corporation for Public Broadcasting, General Docket No. 80-113, 7-8, (September 2, 1980).

equipment did not respond to adjacent channel signals *and* transmission equipment never radiated out of band signals. Unfortunately, this is not the case. Adjacent channel interference can and does occur in two ways. It occurs when the reception equipment produces either a visual or an aural output in response to an adjacent channel signal, and it also occurs when a transmitter emits a signal outside its assigned channel and within an adjacent channel.

25. In the *Notice,* we explained that whether a television receiver produces an undesirable output in response to an undesired adjacent channel signal is affected by three factors: the absolute level of the signals received, the relative level of the signals received, and the design of the receiver itself. On the basis of a 1974 report from the Office of the Chief Engineer,[26] we concluded that if the desired signal were 15 dB higher than the undesired adjacent signal there would be little, if any, adjacent channel interference produced by reception equipment. We also pointed out that a conventional MDS downconverter is a nonselective device that will downconvert both MDS channel 1 and MDS channel 2 and present downconverted versions of both to the television receiver. For

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[26] FCC, A Study of the Characteristics of Typical Television Receivers Relative to the UHF Taboos, Project Number 2229-3 (June 1974). The purpose of the work described in this report was to investigate certain performance characteristics of UHF television receivers that relate to the so-called "UHF Taboos" that are contained in Sections 73.698 and 73.610(d) of the rules, 47 C.F.R. §§ 73.698, 73,610(d). Tests were conducted on 47 receivers to determine their susceptibility to interference caused by the following type of undesired signals:

Adjacent channels

Image frequency channels

Channel combinations creating intermodulation (two undesireds)

Channels creating cross-modulation

Channels differing in frequency by the IF of the receiver

The results of the tests were presented as a set of graphs that showed the relationship between the level of the desired signal and the level of the undesired signal that would just cause perceptible interference. The undesired levels plotted were the levels that caused perceptible interference in the best receiver, the fifth best receiver, fifth worst receiver, the worst receiver and the mean of the interference producing levels of the 47 receivers. In this order, we are only establishing protection from adjacent channel interference and cochannel interference. We recognize that it is possible that interference problems could occur as a result of the operation of noncolocated channels further removed than 1 channel from the desired station; however, we believe that it is better to deal with such occurrences on a case-by-case basis rather than attempt to setup interference standards at this time. *See also,* Middlekamp, L. C., *UHF Taboos - History and Development,* CE-24 IEEE Transactions on Consumer Electronics 514 (November, 1978) (This article contains a discussion of the technical and policy implications of the taboos.)

these reasons, we proposed a rule, § 21.902(b)(5), that would require new stations to provide a signal at the input to the television receiver that was at least 15 dB higher than an undesired adjacent channel signal. Implicit in our proposal was a definition of what constitutes adjacent channel interference. That is an adjacent channel signal will be considered an interfering signal when the ratio of the desired signal to the undesired signal is less than 15 dB when measured at the input of the television receiver that is connected to the output of the MDS downconverter.

26. At this point, it is useful to review the background that lead to our proposal. The adjacent channel interference that occurs when television receivers respond to adjacent channel signals is different depending upon whether the interfering channel is an upper adjacent channel or a lower adjacent channel. Upper adjacent channel interference occurs when the television receiver responds to the visual carrier and sidebands of an upper adjacent channel by producing an unsynchronized, undesired picture superimposed on the desired picture. In the Chief Engineer's test at a desired signal level of -45 dBm (the signal level required by the mean receiver to produce a high quality picture), the ratio of desired signal to undesired signal that produced just perceptible upper adjacent channel interference in the mean receiver was -12 dB. The ratio for the best receiver was -27 dB and for the worst receiver it was +10 dB. Thus at this level of desired signal, there was a 37 dB difference between the ability of the best and worst receivers in rejecting upper adjacent channel interference. At much higher desired signal levels, the receivers did not perform as well. For example when the desired signal level was -15 dBm, the ratio for the mean receiver was 2 dB, for the best receiver it was -12 dB and for the worst receiver it was +16 dB. What these results mean is that depending on the desired signal level, some receivers do not respond to upper adjacent signals until the adjacent signal is considerably stronger (25 dB or more) than the desired signal but that and there are other receivers that respond to upper adjacent channel signals that are a lower level (in some case more than 15 dB lower) than the desired signal.

27. Lower adjacent channel interference occurs when a television receiver responds to the aural carrier and associated sidebands of the lower adjacent channel and is manifested by bar patterns superimposed on the displayed pictures. The results of the Chief Engineer's test showed that most of the receivers tested were more susceptible to lower adjacent channel interference than they were to upper adjacent channel interference. The effect of lower adjacent channel interference also varies with ratio of visual carrier to aural carrier in the adjacent channel signal. The

Chief Engineer's tests were done with this ratio set at 10 dB.[27]

28. It can readily be seen from this review of the test data upon which we based our proposed adjacent channel interference standard that our approach was extremely conservative. For example, our proposed standard of a desired to undesired signal ratio of 15 dB was 42 dB higher than the ratio required by the best receiver in the presence of an upper adjacent channel interfering signal when the desired signal level was -45 dBm. It gave 5 dB more protection than required by the worst receiver at this level of desired signal. Only the worst receiver operating under the worst conditions performed poorer than our proposed standard.

29. We did not receive much comment on our proposed adjacent channel interference standard. One commenter did point out that cable television systems operate with equal levels of desired and adjacent channel signals without apparent problem.[28] The National Telecommunications and Information Administration (NTIA) suggested that we should not base our standards on the worst equipment but rather on the best equipment.[29] Microband suggested that the Chief Engineer's test should not be automatically applied to MDS stations.[30] It also suggested that we might look to the cable television industry for guidance in this area.[31] Microband also suggested that in those cases where adjacent channel interference occurs because of the high signal levels involved the solution was merely to pad down the signal input to the receiver.[32]

30. Since this proceeding began, the CCIR has issued the following adjacent channel protection ratios for UHF and VHF television systems: for lower adjacent-channel interference the ratio of the desired signal to the undesired signal should be equal to or greater than -6 dB; for upper adjacent channel interference the ratio should be equal to or greater than -12 dB. These recommendations are accompanied by the acknowledgement that "fairly conservative values have been chosen to account for the

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[27] Section 21.904(d) of the Rules, 47 C.F.R. 21.904(d), requires that, an MDS station being used for television transmission, must maintain the aural signal between 7 and 10 dB below the visual signal. This is the same standard required of broadcast television stations. 47 C.F.R. § 73.682(a)15. Cable television systems operate with the aural carrier 15 to 17 dB below the visual carrier to reduce the occurrence of lower adjacent channel interference. This apparently does not effect the audio performance of these systems. *See,* Additional Comment of Contemporary Communications Corporation, General Docket Nos. 80-112 and 80-113, 21 (July 2, 1982). *See also, infra,* para. 29.

[28] Browne Comments, *supra* note 17, at 6.

[29] Comments of the National Telecommunications and Information Administration, General Docket No. 80-113, 7 (September 2, 1980) (hereinafter cited NTIA Comments).

[30] Comments of Microband Corporation of America, General Docket No. 80-113, 63, (September 8, 1983) (hereinafter cited as Microband Comments).

[31] *Id.*

[32] *Id.*

divergence in performance between different types of receivers."[33] The CCIR recommendations also contain the notation "Investigations by Canada [CCIR, 1978-82] indicate the appropriate values appear to be -9 dB for lower adjacent channel and -13 dB for upper adjacent channel on system M/NTSC."[34] The M/NTSC is the television transmission system used in the U.S. and Canada.

31. The lower adjacent channel interference standard recommended by CCIR was based on the assumption that the undesired aural carrier was 7 dB below the undesired visual carrier. If this ratio was increased (the aural carrier reduced relative to the visual carrier), the lower adjacent channel interference standard could be reduced. In its comments filed in this proceeding, Contemporary Communications Corporation recommends that the visual-to-aural ratio be 15-17 dB.[35] John F. X. Browne in his comments points out that cable television systems typically operate with a visual-to-aural ratio of 15 dB and equal level visual carriers without apparent difficulty.[36]

32. Although there has not been extensive testing of adjacent channel MDS operations, two such tests have occurred. First was the test that was conducted in New York City in 1974. A statistical analysis of the results of the test indicated that if the ratio of the desired signal to the undesired signal was greater than -2.5 dB, it could be stated at the 72% confidence level that no adjacent interference would be observed. Similarly, it could be stated at the 32% confidence level that if the ratio was between -2.5 and -7.7 dB adjacent channel interference was barely visible and at the 45% confidence level that if the ratio were less than -7.7 dB the interference would be easily visible.[37] Microband included with its comments in this proceeding the results of another adjacent channel test conducted in Cincinnati in 1980.[38] Unfortunately in this test, the ratio of the desired channel signal to the undesired channel signal was between +8 dB and +30 dB. Not unexpectedly no adjacent channel interference was observed on the desired channel.

33. We recognize that the adjacent channel performance of the television receiver is not the only factor that determines the adjacent channel performance of an MDS reception system. A typical MDS reception system consists of an antenna, a downconverter, and a

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[33] *Ratio of the Wanted-to-Unwanted Signal in Monochrone Television*, Recommendation 418-3, Recommendations and Reports of the CCIR, 1982, Volume XI-Part I, Broadcasting Service (Television) 215, 216 (1982).

[34] CCIR Report 306-4, *supra* note 13, at 232.

[35] See, *supra* note 27.

[36] Browne Comments, *supra* note 17, at 6.

[37] F.C.C., Adjacent Channel Interference Test for the Multipoint Distribution Service, FCC/CC No. 75-01, Appendix C (1975).

[38] Microband Comments, *supra* note 30, Appendix V.

television receiver. The downconverter can consist of an amplifier and a mixer followed by a second amplifier. If there are two or more signals present at the output of the receiving antenna, each of the components in the downconverter could generate intermodulation products that would interfere with television reception. For example, if there were two or more very strong signals present at the input to the first amplifier, the amplifier could be overloaded, that is forced to operate in a nonlinear manner, thereby produce undesired intermodulation products. The mixer that is used to change the frequency of the MDS signal to the desired television channel is inherently nonlinear device that will always produce intermodulation products when more than one signal is present. The second amplifier can also generate intermodulation products if the received signal levels are too high. We did not receive any quantitative information in this proceeding concerning these problems despite the fact that we specifically requested it in the *Notice.* It is known that MDS downconversion equipment is available that can handle 8 equal amplitude adjacent channels but only if the ratio of the visual carrier to aural carrier is increased from the normal 10 dB to 17 dB. The existing MDS system in Phoenix successfully transmits channels 1 and 2 with equal power levels from the same location. Thus, each channel is available at the output of the antenna and no objectionable adjacent interference has been reported.

34. After carefully considering these facts, we have concluded that our proposed adjacent channel interference standard was overly conservative. We believe that a more appropriate ratio would be 0 dB. That is, if the ratio of the desired signal to the undesired signal measured at the output of a standard antenna oriented to receive the maximum desired signal is less than 0 dB, the adjacent channel signal will be deemed to be causing undesirable adjacent channel interference. This protection ratio is higher than the CCIR recommendation for UHF and VHF television systems and lower than performance achieved by more than 90% of the receivers in the Chief Engineer's test. It is also higher than any desired to undesired signal ratio at which adjacent channel interference has been observed in any adjacent channel MDS test.

35. Because many of the existing grandfathered ITFS operations were not designed to operate in the presence of adjacent channels signals, we do not believe that it would be reasonable to use the same adjacent channel interference standards for that service. We are especially concerned about the situation where a grandfathered E group ITFS operator and a multichannel MDS F group operator are operating in the same area. On the one hand, we want to make certain that the MDS operator does not cause harmful interference to the ITFS operator; and on other hand, we do not wish to limit unduly the ability of the new multichannel MDS operator to provide service to the public. Because we

have not received any quantitative information on which to base a protection standard for this situation, we will use the Chief Engineer's data. That data showed that if the ratio of the desired signal to the undesired adjacent channel were 10 dB only the worst receiver would experience harmful interference. We assume that the downconversion equipment and television receivers that are in use in the ITFS today together perform at least as well as the worst television receiver tested in the 1974 tests. Thus, we will require multichannel MDS operators to demonstrate that their signal will be at least 10 dB below the adjacent channel ITFS signal. The signals are to be compared at the output of the ITFS receiving antenna with the antenna oriented to receive the maximum ITFS signal. This standard also will be used in cases involving the "bookend" ITFS channel D_4 and G_1. We stress that this 10 dB standard applies only to those ITFS stations that were constructed prior to May 26, 1983. All subsequently constructed stations will only be entitled to protection to the 0 dB standard.

36. If an adjacent channel transmitter emits sufficiently strong spurious emissions that are outside its assigned band but are within the band of a desired channel, such spurious emissions can be a source of cochannel interference to the desired channel. The existing MDS rules require that the spurious emissions from MDS transmitters be at least 40 dB below the main channel signal.[39] Because such emissions constitute cochannel interference to adjacent channel operations, the cochannel interference rule we are adopting today requires that the level of these emissions be such that they are always 45 dB below the level of the desired signal when measured at the output of an antenna, oriented to receive the maximum desired signal, located within the service area of the desired station, and with an unobstructed propagation path to the desired station. The implications of this result for colocated and noncolocated adjacent channel operations and for transmitter standards are discussed further below.[40]

3. The Standard Antenna

37. The determination of whether an undesired signal will cause harmful interference is made at the output terminals of a reference antenna oriented to receive the maximum desired signal. The reference antenna we proposed for use in making this determination has characteristics generally associated with a 2 foot parabolic reflector antenna. We made the choice of these characteristics by comparing the costs, size, and angular discrimination characteristics of the various alternatives. We

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[39] 47 C.F.R. § 21.908(b). This section requires only 30 dB of suppression for transmitters rated at less than 10 watts; there are few, if any, such transmitters in use today.

[40] *See infra* paras. 128-136.

stress again, as we did in the *Notice*, that we are not requiring that antennas with such characteristics be used but rather that these characteristics are to be used in making interference and other calculations.

38. The proposed standard did not elicit much comment from the MDS community. Microband did point out that such antennas cost 8 to 9 times as much as existing antennas, are difficult to install, and are seldom used on private homes.[41]

39. Microband is correct. The antennas commonly used in the MDS industry have lower gain, higher side lobes, and lower front-to-back ratios, than the proposed standard antenna. Reception sites equipped with such antennas are much more susceptible to cochannel interference and also require a much higher signal level to achieve the equivalent picture quality as sites equipped with the standard antenna. We proposed the adoption of a standard antenna to aid in determining when harmful interference was present and to aid in the determination of the boundary of an MDS station's protected service area. In making this proposal, we were aware that most receiving sites would not be subject to harmful cochannel interference nor would they be located in areas of low signal strength. We choose as our proposed standard an antenna that was likely to be used when one or both the these conditions existed.

40. NTIA expressed the belief that our proposed standard be a minimum requirement and that we consider adopting a more completely defined standard in a future proceeding which included side-lobe and back-lobe specifications.[42]

41. NTIA also stressed the importance of recognizing a distinction between mandatory specifications and protection standards. Mandatory specifications are a set of requirements that all equipment must meet and protection standards are defined as "technical and operation characteristics which must be observed to reduce interference to prescribed levels as such interference becomes operationally likely."[43] A licensee that failed to use equipment that met the protection standard would not be entitled to relief from an interfering licensee using proper equipment. We believe that our proposed rule concerning the receiving antenna follows these recommendations.

42. Many members of the ITFS community claimed that the proposed reference antenna had much lower performance standards than the antennas being used at many ITFS receive sites.[44] The use of a larger

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[41] Microband Comments, *supra* note 30, at 48.

[42] NTIA Comments, *supra,* note 29, at 10.

[43] *Id.* at 3.

[44] *See*, e.g., Comments of C. Peter Magrath, President, University of Minnesota, General Docket No. 80-113, Enclosure, "Technical Comments on FCC General Docket No. 80-113" 2 (September 5, 1980).

antenna makes receiving stations less susceptible to interference because such antennas have higher gain in the direction of desired signal and lower gain in the direction of the undesired signal than a smaller antenna. (Of course, when the desired and undesired stations have the same bearing relative to the receiving station the antenna gain characteristics have little effect on the desired to undesired signal ratio.) For this reason, we do not believe that using a 2 foot diameter antenna to make interference calculations would adversely affect those using larger antennas. In fact, the adoption of a larger antenna would be a disadvantage to both grandfathered users of the E and F group channels and to the users of ITFS channels D_4 and G_1 that are adjacent to the E and F group channels. If the receiver sites of such operations actually used 2 foot antennas and the interference calculations were made using the characteristics of a larger antennas, the levels of cochannel and adjacent channel interference that would actually occur would be higher than calculated. Thus, it could appear as a result of calculations that such locations would not experience harmful interference when in practice they would.

43. In addition to its effect on interference susceptibility, antenna size also plays a large part in determining the minimum useful signal. For instance, the gain of a 10 foot parabolic antenna would be in the range of 34-37 dB compared with 20-23 dB for a 2 foot antenna. Thus, a station using a 10 foot antenna would require a power flux density level 10-12 dB below that required by a station using a 2 foot antenna to produce the same quality picture. However, a 10 foot antenna is more expensive and more difficult to install than a 2 foot antenna. In fact, in many locations the installation of such an antenna is impossible. Given the nature of the services which we are addressing, it would not be reasonable to adopt a large antenna as reference antenna. The use of such antennas is discussed further below in our consideration of required signal level.[45]

44. Finally with regard to the proposed standard, we have become aware that its cross-polarization characteristics have caused confusion concerning the maximum cross-polarization discrimination that should be used in making cochannel and adjacent channel interference studies. In a Public Notice issued on June 1, 1979 (PN 18063 June 1, 1979), it was stated that in calculating interference levels the maximum cross-polarization discrimination to be used was 20 dB. In the proposed standard antenna, there are directions in which the cross-polarization discrimination exceeds 20 dB. In particular, between 0° and 9° off the main axis of the antenna the discrimination varies from 25 dB to 20 dB and from approximately 103° to 180° the discrimination is approximately 21 dB. These differences have been a source of controversy in some contested application proceed-

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[45] *See infra,* paras. 78-84.

ings. Although we did not receive any comment on this discrepancy in this proceeding, we believe this is the proper forum in which to resolve the matter.

45. As polarized radio signals propagate through the atmosphere, there is a probability that the direction of polarization will change as a result of fluctuations in the propagation path. Such fluctuation can substantially affect the amount of polarization discrimination available at a receiving site. For example, consider a signal that is vertically polarized when it leaves the transmitting antenna and is polarized 10° away from vertical when it reaches a receiving antenna 30 miles away. Approximately 3% of the power in such a signal would be contained in a horizontally polarized component of the signal that did not exist when the signal left the transmitting antenna. In other words, at the receiving antenna, such a signal would consist of a vertically polarized component containing almost the same power as would be contained in a signal that had not undergone a polarization change (actually such a signal would be 0.13 dB below an unshifted signal) and a horizontally polarized component with a power level approximately 15 dB below the unshifted signal. Because the horizontally polarized component of such a signal would not be subject to any polarization discrimination, its effect as an interfering signal would be 5 dB higher than the unaltered, vertically polarized signal that is subject to 20 dB of polarization discrimination and 10 dB higher than the same unaltered signal subject to 25 dB of polarization discrimination (-15 + 20 = +5 or -15 + 25 = +10). Furthermore, in order to realize the full cross-polarization discrimination of the receiving antenna even when there is no polarization shift, it is necessary for the polarizations of the transmitting and receiving antennas to be exactly 90° apart. Any variation will reduce the polarization discrimination in a manner similar to that which occurs when the signal polarization is rotated.

46. For these reasons, we believe that it is reasonable to limit the maximum cross-polarization discrimination that can be used in interference calculations to 20 dB. We believe this approach provides some compensation for the variations described and thus will yield calculation results that are closer to real world results. We have adjusted the standard antenna characteristics accordingly.

47. Finally with regard to the proposed standard antenna, we have become aware that the antenna upon which we based the proposed standards, the Andrew Corporation MD2 series antenna, is no longer being manufactured. We do not believe this fact is of any decisional significance since there are other antennas available with similar electrical characteristics.

48. In summary, we believe that our proposed standard antenna characteristics as modified represent a reasonable model of antennas that

might be used either in areas of low signal strength or where interference is likely to occur. For this reason, we are adopting the modified standard as shown in appendix B. We also believe that it is reasonable to use this antenna to adjudicate adjacent channel and cochannel interference questions involving MDS stations and grandfathered ITFS stations using the E and F group channels and also ITFS users of channels D_4 and G_1. We shall also use this antenna to resolve cochannel and adjacent channel questions that might arise concerning ITFS station operations.

B. Protected Service Area

1. Policy Considerations

49. The concept of a protected service area has always been implicit in the MDS rules. We have always required an applicant proposing to construct a new station to submit an interference analysis demonstrating that the proposed station would not cause harmful interference to any existing or previously proposed station located within 50 miles of the new station. 47 C.F.R. § 21.902(c). The boundary of the protected service area was never specified nor was the exact nature of the protection within the service area afforded clearly stated. In attempting to fashion a more precise definition of the protected service, it is necessary first to define the objective we are trying to achieve.

50. Our primary objective is to structure the protected service area so as to maximize the number of sites that can be served and, concomitantly, to minimize the number of sites that are unable to receive service. Specifically, we believe that the protected service area should be that area in which reliable service is available to the majority of receiver locations within the area. We do not believe it is in the public interest to extent the protected service area to include the most remote location that could theoretically receive service assuming ideal propagation conditions existed and the highest quality reception equipment were used. Proceeding in this manner would result in large sections of such extended service areas not being able to receive service from the station serving the area because not all locations between the transmitter and such location would enjoy ideal propagation conditions. Furthermore, the creation of extended service areas might prevent the licensing of new stations that could serve those locations. This is because proposed stations that could serve those areas would more be likely to cause harmful interference within an extended protected service area and thus not be eligible to be licensed.

51. Microband argues strongly that our policy encourages more and closer spaced stations with moderate transmitter power rather than fewer, more widely spaced, stations with higher power with the result that fewer receiver sites will be served.[46] Microband supports its claim

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[46] Microband Comments, *supra* note 30, at 15.

with analysis and graphical representations of coverage zones for 3 cities: Chicago, Detroit and Miami. All the data submitted by Microband purport to show that using low power (10 watts) closely spaced stations will result in a much smaller area being served than could be served by a single 100 watt station. In Chicago, Microband shows service from a 100 watt station out to almost 60 miles from the transmitter. Microband states that these analyses represent "real world situations."[47]

52. Microband's analysis is at variance with other studies. On June 19, 1978, Multipoint Communications Corporation, the then licensee of the Chicago MDS station, requested authority to increase its transmitter power from 10 watts to 100 watts. Accompanying that request was an Exhibit "M" that contained the following statement:[48]

> As result of receiving installations that have been made in the Chicago area to make use of the service provided by the existing 10 watt MDS station, many problems have been encountered in obtaining adequate signal strength and quality of received signal. This has resulted in a need to install 4 foot diameter antennas, and even 6 foot diameter antennas. As compared with 2 foot diameter antennas, both 4 foot and 6 foot antennas are significantly more expensive. In addition to the material cost of the antennas, the installation cost rapidly increase with size. For example, the cost of installing a 6 foot antenna is more than double the cost of a 4 foot antenna and a 4 foot antenna installation is 50% more expensive than a 2 foot one. Larger antennas also present significant aesthetic problems to property owners.

53. It was not clear from the exhibit at what distances from the transmitter it was necessary to install the larger antennas; however, the station file also contains a letter from the programmer of the Chicago station to its attorney supporting the 100 watt request. This letter contains the following statement:[49]

> Within a 15 mile range, our successful installation rate has been as low as 30%

Thus, it is clear that, while it may be theoretically possible to serve the area indicated by Microband in its comments, the reality is that it is very difficult to serve many locations located much closer to the transmitter than the large distances claimed by Microband. The issues of how far from a transmitter it is possible to provide reasonable service and what is an adequate level of transmitter power are discussed in detail in subsequent sections of this *Order* and in the Further Notice of Proposed Rulemaking we are adopting today. We mention them here only to make the point that we do not believe that data presented by Microband supports its contention that more sites could be served by fewer, widely spaced higher power stations than could be served by lower power closer-spaced stations. We also believe it is clear that limiting the size of the protected service area decreases rather than increases the possibility that a cochannel interference problem will occur. This is because sites located at the edge of a smaller protected service area are closer to the desired station and farther from the undesired station than are the sites located at the edge of the larger protected area suggested by Microband. Thus, the calculated ratio of the desired signal to the undesired signal would be lower at distant sites and if the site were partially obstructed, as sites located farther from the transmitter are more likely to be, it is very likely that the ratio will fall below the minimum acceptable level.

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[47] *Id.*, at 25.

[48] Multipoint Distribution Service Station File W0F49, Application File No. 2741-CM-P-78, Exhibit "M", June 19, 1978.

[49] *Id.* Letter from Michael Dubester to Bill Reyner (August 13, 1980).

54. We also believe that the size of the protected service area really has very little to do with how close stations can be located to each other. That this is true can be seen by considering the following analysis. First, it must be realized the receiving sites that are most likely to experience harmful cochannel interference are those located on the radial that connects the desired station and the undesired station and are located on the side of the desired transmitter that is away from the undesired transmitter. The receiving antennas at such sites will be pointed directly at both the desired transmitter and the undesired transmitter. If we assume that the transmitting antennas are cross-polarized and that the receiving antenna can provide 20 dB of cross-polarization discrimination, then the propagation loss between the undesired transmitter and such a receive site must exceed the propagation loss between the desired transmitter and the receive site by at least 25 dB if a desired to undesired signal ratio of 45 dB is to be achieved. If we assume free space propagation conditions and look at a site located 10 miles from the desired station, we find that the undesired station must be located at least 168 miles from the desired station to achieve the desired 25 dB differential in propagation loss. A site located 10 miles from the transmitter would be within the protected service area of the desired station regardless of how large the protective service area was as long as the radius was at least 10 miles. Because the difference in propagation loss gets smaller as the site is moved farther from the desired station, all points on the radial located more than 10 miles from the desired station would also experience harmful cochannel interference. Of course, it is extremely unlikely that a station 168 miles away could cause such interference because the receive site would most likely be beyond the radio horizon of the undesired stations. Thus it is clear that it is the location of the radio horizon of the undesired transmitter rather than the size of the desired station's protected service that will determine how close an undesired station can be located to an existing cochannel station. A more reasonable way to determine how close a cochannel station can be located is to assume that all sites located on the radial connecting the two stations and located on the side of the desired transmitter away from the undesired station must

be beyond the radio horizon of the undesired station. If we assume the receiving antenna height is 30 feet then, assuming 4/3 earth radius propagation conditions, a 300 foot high transmitter would have to be located 32.2 miles away. A 500 foot transmitter would have to be 39.4 miles away and a 1,000 foot transmitter would have to be 52.5 miles away. The separation requirements are relatively independent of the protected service size.

55. Microband also submitted an analysis of the relationship between antenna height and service area size.[50] The analysis showed the variation in transmitter height as a function of protected service area radius assuming that the stations were located as close as possible. That is each station had a service area of radius r miles and was surrounded by eight other stations. Four of which were located 2r miles away, the other four stations were located 2 times square root of 2r miles away. Using this model, Microband showed that if the service area radius were 15 miles, the transmitter height of all stations would have to be limited to 153 feet. In a further refinement of the analysis, Microband shows that if one of the stations used dual-polarized antennas rather than a single-polarized antenna to achieve omnidirection coverage the transmitter height would have to be less than 27 feet. We agree with Microband's conclusion that this is impractical; however, we do not agree that the solution is to expand the size of the service area. Rather, we believe it is better to limit the size of the service area to that area in which reasonable service can be provided and require subsequently proposed station to not interfere with existing or previously proposed stations. This can be achieved by making adjustments in the separation between stations and in the height of the transmitting antenna. This is the manner in which existing MDS stations have been located.

56. Finally in this regard, we were aware that our rules only require that an applicant submit an interference analysis if the proposed facility is within 50 miles of an existing or previously proposed adjacent channel or cochannel station. As can be seen from the above analyses, the mileage between these stations is not the only factor that determines whether interference will occur—transmitting antenna height is equally important. In Petition for Rulemaking RM-3232[51], Microband suggested that we extend the 50 mile requirement to 125 miles—that is require an interference analysis from any applicant that proposes to locate its facility within 125 miles of an existing or previously proposed station. We believe that this is unnecessary. A station located 125 miles from a cochannel or adjacent station would need an antenna height of more than 6,800 feet in order to have a line of sight path to a 30 foot high receiving antenna 125

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[50] Microband Comment, *supra* note 30, at 16-25.

[51] See *infra*, paras. 141-143.

miles away. We think such an occurrence would be rare. However, we do believe that whenever an applicant proposes to construct a station such that there is a line of sight propagation path between the proposed transmitting antenna and the protected service area of an existing or previously proposed cochannel or adjacent station, the applicant should submit an interference analysis showing the effect of the proposed station on the existing or previously applied for stations. For this reason, we are amending Section 21.902(c)(1) of the rules, 47 C.F.R. 21.902(c)(1), to require the submission of such an analysis.

57. Finally in regard to MDS protected service area policy, we stress that it is our intention to enforce rigorously Section 21.902(a) of the rules, 47 C.F.R. § 21.902(a), that requires, *inter alia*, that "all applicants, permittees, and licensees shall make exceptional efforts to avoid harmful interference to other users and to avoid blocking potential adjacent channel use in the same city and cochannel use in nearby cities." All petitions to deny that include allegations of cochannel or adjacent interference must include a detailed statement of what efforts were made to comply with this section. We do not intend to accept any new MDS applications that do not contain a detailed explanation of how the applicant has complied with this section and how it will comply in the future should the need arise.

58. Another policy issue raised by our protected service area proposal was whether it was desirable to have a protected service area at all. Although most members of the MDS community questioned the wisdom of some or all of the service area characteristics virtually all agreed that there was a need to have a clearly defined protected service area. For example, Contemporary Communications Corporation commented as follows:[52]

> Initially, we would like to register our support for the Commission's efforts to define the zone of protection from electrical interference to be afforded existing and new MDS stations. As the industry has grown, disputes over interference have multiplied and will continue to do so. Clarification in this area should tend to reduce these disputes and save the Commission and the carriers time and expense.

The ITFS community, on the other hand, expressed the view that using a single protected service area definition for all ITFS operations was not appropriate. In support of this view, many ITFS system operators cited examples of receiver sites that were located well beyond the proposed protected service area boundary.[53] Others pointed out that the area served by ITFS facilities is often conterminous with a school district or other political subdivision.[54]

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[52] Comment of Contemporary Communications, General Docket No. 80-113, 1 (September 8, 1980).

[53] *See e.g.*, Comments of the Catholic Television Network and The National Instructional Telecommunications Council, Inc., General Docket No. 80-113, 6 (September 2, 1980).

59. We agree that the nature of a typical ITFS operation is different from the typical MDS operation in that an ITFS operator frequently must provide service to certain sites regardless of the engineering difficulties involved whereas an MDS operator will rarely make extraordinary efforts to reach difficult or remote locations. On the other hand, we also believe that the reason that many ITFS operators have not felt the need for a protected service area was that the frequency allocation plan used in that service was such that adjacent channel service in the same area and cochannel service in adjacent areas were seldom required. Finally, the facts that ITFS licensees are primarily interested in spectrum as an aid to further educational purposes and that the spectrum was not congested have led to a tradition that ITFS operators were more collegial than MDS operators and therefore had a greater tendency to work out interference problems among themselves.

60. The reallocation plan that was adopted in the *Multichannel Order* could change this situation. In the first place, the fact that there are fewer channels available for ITFS use will increase the likelihood of interference problems occurring. In addition, because ITFS operators may now lease excess capacity on their facilities, there may be many more sites being served thereby increasing the possibility that interference problems will occur. This is especially likely to occur if the lessee of the excess capacity uses the facility to deliver entertainment programming to single family dwellings. Such sites are unlikely to be as well engineered as traditional ITFS receiver sites.

61. Because of these considerations, we do not think it is appropriate to adopt specific service area boundaries for ITFS operators. We believe that it is in the best interest of that service to continue to allow ITFS operators to engineer their facilities to serve to all sites they have traditionally served regardless of location and to protect all such locations. This should not be taken to be an invitation to ITFS operators to claim expanded service areas by finding remote locations that might conceivably be logical recipients of the service.

62. We do not believe that similar considerations apply during the hours the ITFS facilities are being leased or being used by the licensee for non ITFS purposes. It is likely that lessees of ITFS facilities will be offering services that are similar to those offered on MDS facilities. For this reason, we have concluded that during the hours ITFS facilities are being leased or used by the licensee for non ITFS purposes the service area should be the same MDS service area. In this regard, we also stress

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[54] Comments of the Joint Council on Educational Telecommunications, General Docket No. 80-112, 2 (September 3, 1980).

that it is the licensee that it protected from harmful interference not the lessee.

63. We did not receive any comment on the applicability of the protected service area concept for OFS stations. At the time the *Notice* was released, there was little interest in the OFS portion of the 2500-2690 MHz band. In Docket 80-112, we decided not to reallocate additional spectrum for OFS channels in recognition of our stated intention that, initially, data and non-entertainment services receive priority consideration over video entertainment services for use of the OFS spectrum.[55] To date, as a result of the new filing period opened August 1, 1983 for applications proposing data and other non-entertainment services on the OFS H group channels, the Commission has received approximately 2,100 applications for these three channels. The MDS and OFS services are similar technically, and many of the same considerations raised with respect to MDS technical standards may be generally applicable to OFS.

64. Finally with regard to policy considerations, we address the question of the nature of the protection afforded within the protected service or, more particularly, what we shall do if a licensee or applicant alleges that harmful interference is taking place or will likely take place as a result of the operation of an existing or proposed station. If a station causes either harmful adjacent channel or harmful cochannel interference within the protected service area of another existing station and that interference is not *de minimis,* we will require the offending station to cease operations until the interference is eradicated. The station alleging that it is being interfered with will be required to make a clear and convincing showing that the interference is occurring.

65. An application that proposes cochannel or adjacent channel operation and does not contain a showing that the proposed operation will not cause harmful interference as described herein will not be accepted for filing.

2. The Protected Service Area Boundary

66. In the *Notice,* we determined the boundary of the proposed protected service area by first defining what constitutes a minimally acceptable picture and then calculating the signal level needed at the receiver to produce such a picture. In particular, we calculated the power flux density required to produce a minimally acceptable television picture 99.9% of the time. In making this calculation, we assumed the use of reasonable reception equipment and worst case propagation conditions. The protected service area boundary was defined to be equivalent to the calculated power flux density contour. The policy underlying our proposal was that the protected service area should be the area in which service

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[55] *Memorandum Opinion and Order* in Docket 19671, 48 Fed. Reg. at 32,583.

would generally be available. That is, it would not be reasonable either to protect a licensee's signal where a significant amount of service could not be provided or to not protect a licensee's signal where a significant amount of service could be provided. We recognize that the physics of the situation is such that there is not a sharp dividing line between those areas in which service will be available and those areas in which service will not be available. We believe that our proposals represented a reasonable compromise between the lack of precision in the physical world and the need for precision in our rules. We also proposed certain other limitations on the protected service area boundary that will be discussed below.

67. Before discussing in detail the elements used to determine the proposed boundary, we believe it is important to emphasize what the calculations represent. The calculated power flux density is that which will be available at the far edge of the protected service area. Because power flux density varies as the inverse square of the distance from the transmitter, any unobstructed location closer to the transmitter than the edge of the service area will have a higher power flux density than locations on the boundary. For example, at a location 7½ miles from the transmitter, the power flux density will be 4 times as large as the power flux density 15 miles from the transmitter. Further, the calculation was made assuming worst case propagation conditions. When the propagation conditions are ideal, the signal power available at 15 miles will be 21 dB greater than that available when worst case propagation conditions exist. This means the available signal power will be more than 100 times larger under ideal conditions than it will be under worst case conditions. The signal will be higher than the worst case level 99.9% of the time. Thus, at most locations, most of the time the available signal power will be much higher than the calculated value. This means, of course, that the available picture will be much better than the minimally acceptable standard most of the time.

a. The Minimally Acceptable Picture

68. The first issue to be resolved in determining the needed signal level, and hence the protected service area boundary, is what constitutes a minimally acceptable picture. In the *Notice*, we said that we would consider a minimally acceptable picture to be equivalent to a TASO Grade 4 picture as judged by 50% of those viewing the picture. This picture is called "marginal" and is described as being "poor in quality causing the viewer to wish it could be improved." The interference (or noise) is described as being somewhat objectionable. Whether a given picture meets this standard is determined by the viewing standards of the observer and the type of material being presented as well as the amount of interference. The amount of noise in the picture background is a

function of the signal-to-noise ratio available at the input terminals of the television receiver and to a lesser degree the quality of the receiver itself. For a given input signal-to-noise ratio a certain percentage of those viewing a picture will rate it a TASO Grade 4 or better. As the signal-to-noise ratio increases, a larger percentage of those viewing the picture will rate it a TASO Grade 4 or better and as the signal-to-noise ratio decreases a smaller percentage of those viewing it will rate it a TASO Grade 4 or better. In the *Notice,* we defined a minimally acceptable picture as the picture that was available when the signal-to-noise ratio at the television receiver input was such that 50 percent of those viewing the picture would rate it a TASO Grade 4 or better. The signal-to-noise ratio required for this result is 23 dB.[56]

69. We did not receive any comment from the MDS community concerning what constitutes a minimally acceptable picture. Some members of the ITFS community commented that we should have used a TASO Grade 3 picture or, equivalently, that we should have used a higher signal-to-noise ratio.[57] Their disagreements are apparently based on two factors: a perceived need for a higher quality picture in the ITFS and a misinterpretation of how we were using the TASO Grade 4/23 dB signal-to-noise ratio definition.

70. The nature of the video information being transmitted has much to do with the subjective rating a viewer assigns to a television picture. When images containing more than the average amount of detail are being transmitted a higher signal-to-noise ratio is required to achieve a given perception of picture quality. We selected the signal-to-noise ratio for a picture of average detail and believe that it is representative of most

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[56] There appears to be some confusion about the difference between the terms signal-to-noise ratio and carrier-to-noise ratio and the relationship of each to the TASO results. The Corporation for Public Broadcasting, in its Reply Comment filed in General Docket No. 80-112, correctly points out that the signal-to-noise ratios used in the TASO reports are really carrier-to-noise ratio measured at the inputs to the television receiver. The carrier power is defined as the sync tip power and the noise is defined as noise power contained in a 6 MHz bandwidth. CPB further claims that the relationship between signal-to-noise ratio and carrier-to-noise ratio is:

$$S/N = C/N + 3 \text{ dB}$$

Comments of the Corporation for Public Broadcasting, General Docket No. 80-112, Appendix one, 62-63, 67-68, 72-76 (September 26, 1980). John F. X. Browne on the other hand claims that the relationship is:

$$S/N = C/N - 6 \text{ dB}$$

Browne Comments, *supra* note 17, at 3. There are also variations in the definitions of signal-to-noise ratio. *See,* Strus, T.M. "*The Relationship between the NCTA, EIA, and CCIR Definitions of Signal-to-Noise Ratio,* 20 IEEE Transactions on Broadcasting 36 (September, 1974).

[57] *See* e.g., CTN Comments, *supra* note 53, at 6-7.

material being transmitted by MDS operators.[58] We recognize that some educational material contains much more detail than an average entertainment television picture; however, we have not been presented with any data on how frequently these transmissions occur.

71. Most of those who argued in favor of a higher TASO grade, or, equivalently, for a higher signal-to-noise ratio, as the definition of a minimally acceptable picture appear to be losing sight of what this standard represents. This is not the picture that will be available on the average. At most locations most of the time, a much better picture will be available. Even at the most distant locations the picture available will be better 99.9% of the time.

72. Further, the effect of raising the standard for what constitutes a minimally acceptable picture is to reduce the size of the protected service area if all other factors remained the same. For instance, if we were to raise the standard to a TASO Grade 3 as perceived by at least 90% of those viewing the picture, the required signal-to-noise ratio would be approximately 10 dB higher or 33 dB. Using the equations derived in Appendix 2 of the *Notice*, it can be shown that this signal-to-noise ratio would be available under worst case propagation conditions at a distance of 9.5 miles from the transmitter. We do not believe that a decrease in the size of the service area of this degree is justified by the benefits that would be derived from adopting a higher standard for the minimally acceptable picture.

b. Signal Availability and Propagation Model Considerations

73. The next element in the determination of the needed signal level is the availability of the minimally acceptable picture. The nature of electromagnetic propagation is such that there are frequent changes in the signal level available at receiver locations. Most of these changes are of short duration and small in magnitude and hence not noticeable by the viewer. There are, however, other changes that last for significant periods of time and are of such a magnitude that the received signal is significantly reduced. These changes, which result from a combination of climatic and geographic factors, are referred to as fades. The exact magnitude and duration of these fades are difficult to predict; however, very good mathematical approximations of their behavior are available. In Appendix 2 of the *Notice*, we calculated the signal-to-noise ratio that would be available at least 99.9% of the time under the worst climatic conditions. We did this calculation for several distances from the transmitter and used the results to construct a table of available signal-to-noise ratio as a function of distance from the transmitter.

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[58] *See* Dean, *supra* note 14, at 1037.

74. We pointed out in the *Notice* that this means that the available signal would fall below the specified value about 45 minutes per month. Microband in its comments calls this assertion "misleading and inaccurate."[59] Microband claims that fades are seasonal in nature and that many months have no fades. For this reason, it claimed that it would be more meaningful to speak of 99.9% availability as meaning outages of 9 hours per year. We do not agree with Microband's characterization of our statement; however, there is no doubt that it is difficult to predict the temporal distribution of the fades.

75. The fades will neither occur in a single 9 hour stretch once a year nor in regular monthly stretches of 45 minutes. Their fundamental nature is statistical and they will occur in a non-uniformly random manner throughout the year. The important point is that they do occur and they must be considered in determining where and for what duration a minimally acceptable signal is available.

76. Of course, it could be argued, as Microband does, that 99.9% availability is too high for a service such as MDS. Microband believes that 99.5% is enough. We recognize that our choice of 99.9% availability was somewhat arbitrary, but since we choose a relatively low quality picture as the minimally acceptable standard we believe our availability choice is justified. The calculated results would not be significantly different if we choose 99.5% availability figure and a TASO Grade 2 picture standard. We believe that our choice of a 99.9% availability standard and a TASO Grade 4 picture most closely approximates what is an acceptable system performance. We do not believe that it would be any more reasonable to use a TASO Grade 3 with a 99.5% availability as Microband suggests.

77. NTIA questioned whether the propagation model we used was appropriate for the signal propagation conditions encountered in the MDS.[60] NTIA based its view on the fact that the model used was developed for use in modeling long path point-to-point microwave links rather than for use in modeling the relatively short path MDS transmissions. We agree that the method is more suitable for longer paths and note that these are exactly the paths for which we used the model in the *Notice.* We do not expect fading to be a problem close to the transmitter; however, it could be a serious problem near the edge the service area. For this reason, we did not make any calculations for locations closer to the transmitter than 14 miles. We also agree with NTIA's contention that for non-line of sight paths effects other than fading will dominate. For this reason, we specifically stated that we were only considering those receiver locations that had an unobstructed propagation path to the transmitter. There may be other models that could more accurately

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[59] Microband Comment, *supra* note 30, at 44.

[60] NTIA Comments, *supra* note 29, at 11-14.

predict propagation phenomena; however, we do not believe the use of such models would substantially alter the results. Further, no results using other models were submitted for comparison.

78. Finally, we have become aware during the pendency of this proceeding that certain meteorological conditions can cause unusual propagation phenomena, such as superrefraction and ducting, that can lead to much stronger radio signals beyond the radio horizon than would normally be expected.[61] These phenomena occur for small percentages of time over most of the U.S. and for very significant percentages of time over some areas usually associated with large bodies of water and are especially prevalent in the Southern California coastal area and around the Gulf Coast. Recent long-term measurements by the Office of Science and Technology on VHF/UHF paths in Southern California showed free space fields well beyond the radio horizon for significant periods of time during some seasons of the year. These phenomena are more prevalent at microwave frequencies than at VHF and UHF and can be expected to result in interfering signal levels in the 2100-2600 MHz band under certain circumstances. Sufficient data are not available at this time to permit reliable predictions of enhanced filed strengths for most of the country. However, as a precautionary step we have added a requirement to Section 21.902(c) of the rules intended to identify those situations where significant interference due to this phenomenon is most likely to occur.

c. Equipment Considerations

79. In making the calculation to determine how far from the transmitter a minimally acceptable picture was available, it was necessary to make certain assumptions about the amount of signal being transmitted and the equipment being used to receive the signal.

80. In the *Notice*, we assumed a 10 watt transmitter and a 13 dB gain transmitting antenna. This combination gives an effective isotropic radiated power (EIRP)[62] of 23 dBW or 200 watts. We assumed a lossless transmission line between the transmitter and the transmitting antenna. In practice, there will always be some loss between the transmitter and the antenna. The exact loss will depend upon the type and length of the transmission line used. A review of the MDS station files indicates that this loss can be as large as 7 or 8 dB.

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[61] Dougherty & Dutton, *The Role of Elevated Ducting for Radio Service and Interference Fields,* NTIA Report 81-69, March 1981. *See also Effects of Large-Scale Tropospheric Refraction on Radiowave Propagation,* Report 718-1 Recommendations and Reports of the CCIR, 1982, Volume V, Propagation in Non-Ionized Media, 123 (1982).

[62] Effective Isotropic Radiated Power expressed in dBW is the ratio of the power radiated in the direction of maximum gain to the ratio of power that would be radiated by a 1 watt transmitter radiating uniformly in all directions.

81. The two most important characteristics of reception equipment in determining what power flux density will produce a minimally acceptable picture are the receiver antenna gain and the noise figure of the reception equipment.

82. We assumed that a typical receiver installation is equipped with the standard two-foot parabolic receiving antenna discussed above and downconversion equipment with a 10 dB noise figure. Noise figure is a measure of the amount of noise the reception equipment generates in the bandwidth of interest. An ideal receiver would generate no noise and would have a noise figure of 0 dB. A larger noise figure indicates an increase in the amount of noise generated and therefore less desirable reception equipment.

83. We did not receive much comment on our equipment assumptions. Microband did claim that most of the assumptions were overly conservative and not representative of the equipment actually being used in the MDS industry. Microband expressed the view that our calculations should have been based on a 100 watt transmitter rather than the 10 watt transmitter.[63] All members of the MDS community commenting in this proceeding, including Microband, stressed that it is usually impossible to serve many sites located very close to the transmitter with a 10 watt transmitter. We have always recognized that many MDS receiver sites have less than ideal propagation paths to the transmitter. For this reason our Rules provide[64] that although transmitter power generally will be 10 watts, a licensee may be authorized up to 100 watts of transmitter power on showing that reliable service cannot be provided to a reasonable number of locations within the service area of the station using a 10 watt transmitter. What this means is that the service area is defined assuming 10 watt line-of-sight service but if it turns out in practice that the licensee cannot provide reliable service within the service area, we will authorize such licensee to use up to a maximum of 100 watts of power to provide reliable service in that service area. It seems that Microband is arguing on the one hand that 10 watts is not enough power to provide reliable service to many points within the 10 watt line-of-sight service area and on the other hand that we should use 100 watts to determine the location of the service area boundary.

84. In a Further Notice of Proposed Rulemaking in this proceeding, we propose eliminating the 10 watt limitation and authorizing all MDS stations to transmit the functional equivalent of 100 watts of power. Experience with this service has shown that losses caused by partial blockage of receiver sites or by foliage induced attenuation make 10 watts impractical for MDS as used today. We do not believe, however, that we

[63] Microband Comments, *supra* note 30, at 45.

[64] 47 C.F.R. § 21.904(b).

should use 100 watts to calculate the service area boundary when we do not account for these phenomena in our calculations. We believe the better course is to calculate the service area boundary using line-of-sight methodology and a 10 watt transmitter. By proceeding in this manner, we are able to make a relatively straightforward calculation unencumbered by difficult model assumptions. We believe that the combination of a 10 watt transmitter and a line-of-sight propagation model is a reasonable way to calculate the power flux density available at reasonable distances from transmitter. Finally, it should be noted that the propagation variations we are referring to here are those which are of a constant nature and not the time-varying fading phenomena that we considered in our calculations.

85. Microband also claimed that our assumption of a downconverter noise figure of 10 dB was overly conservative. They suggested that a 5.5 dB noise figure was more representative of the present "state of the art" in such equipment. Microband further stated that near the edge of the service area equipment with noise figures as low as 2.5 dB might be used.[65] The reason we used the higher noise figure was to compensate for other system losses that we did not include in our calculations. As stated above, we did not include transmission line loss in our calculations, in addition we include other system losses such as connector loss, receiver-transmitter antenna misalignment loss, and receiver equipment loss in our calculation. Furthermore, we assumed that all receiver locations were equipped with the equivalent of 2-foot parabolic antenna. This is frequently not the case. In many instances, the antennas used have much lower gain than the standard antenna. The better method may have been to make an estimate of each of these losses and make the calculation using the total estimated loss. However, we do not believe that the results would have been substantially different. In fact, the sum of the losses described probably exceeds the 4.5 dB increase in system performance that would result from using the lower noise figure downconverter suggested by Microband.

d. Theoretical Calculations

86. In Appendix 2 of the *Notice*, we calculated the power flux density, the power received and associated signal-to-noise ratio as a function of distance from the transmitter for each mile from 14 miles to 20 miles. These calculations were made assuming free space propagation conditions and using the EIRP and equipment parameters described in the previous sections. The signal-to-noise ratio calculation was made using an information bandwidth of 4.2 MHz, the video bandwidth of a television receiver. In making the signal-to-noise calculation, we did not include any noise other

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[65] Microband Comments, *supra* note 30, at 42, 43.

than that generated in the downconversion equipment. That is, we assumed that the downconverter was being driven by a source with a characteristic impedence equal to the input impedence of the downconverter and that the input reference temperature was 290° K.

87. We then reduced the calculated signal-to-noise ratio by the calculated worst case fading loss for each distance. By this procedure, we arrived at the signal-to-noise ratio that would be available at the output of the downconversion equipment 99.9% of the time.

88. The result of these calculations shows that a signal-to-noise ratio of 23.3 dB will be available 15 miles from the transmitter. This signal-to-noise ratio will produce a television picture that will be judged a TASO Grade 4 or better by 50% of those viewing the picture. It should be stressed again that the picture will be better than this 99.9% of the time. In fact when no fading is occurring, the signal-to-noise ratio will be 44 dB. At this signal level, 55% of those viewing the signal would rate it a TASO Grade 1 and 99% of those viewing it would rate a TASO Grade 2 or better.[66]

89. As a result of these calculations, we proposed to define the protected service area boundary as the -75.6 dBW/m^2 power flux density contour. This is the power flux density at 15 miles assuming a 10-watt transmitter, 13-dB gain transmitting antenna, and free space propagation conditions.

90. NTIA stated that it supported our adoption of the -75.6 dBW/m^2 contour as the boundary of the protected service area because it was based "solely on the properties of the receiving system and (was) independent of the propagation mechanism or model assumed."[67] This is incorrect. Our choice of a minimally acceptable picture as that produced by a 23 dB signal-to-noise ratio at the input to the television receiver was independent of any other consideration; however, all other calculation parameters influenced the result. For example, if we had used the same propagation model but changed the values of the climatic and terrain parameters in the model, we would have arrived at a different power flux density. If we had used the terrain roughness factor for rough earth in place of the smooth earth factor and if we had used the average climatic factor in place of the coastal climate climatic factor, the resulting fading loss would have been approximately 14 dB lower. This means that the 23 dB signal-to-noise ratio would have been available at 29 miles where the unfaded power flux density is -81.3 dBW/m^2. At this distance, the unfaded signal-to-noise ratio would be 38 dB which would produce a television picture which would be judged to be TASO Grade 1 or better by 30% of those viewing it and would be judged a TASO Grade 2 or better by 88% of

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[66] TASO Report, *supra* note 14, at 533.
[67] NTIA Comments, *supra* note 29, at 7.

those viewing it. Thus, it is clear that our choice of -75.6 dBW/m^2 contour as the boundary of the protected service area is dependent not only on our choice of reception equipment but also is dependent on our fading model and the parameters used in the model.

91. It should also be noted that if we increase the EIRP by 10 dB (a 100 watt transmitter) the 23 dB faded signal-to-noise ratio would be available at 23 miles where the power flux density would be -69.3 dBW/m^2. Thus, the power flux density we choose as the service area boundary was also dependent upon the EIRP we choose to use in making the calculation.

92. We point all this out merely to emphasize the fact that the calculation of a protected service area boundary is a complicated procedure that depends heavily upon the assumptions used in making the calculations. In making these calculations, we made conservative assumptions concerning equipment and propagation mode parameters. We recognize that there are valid arguments that support less conservative assumptions; however, we believe that the more prudent course in a complex procedure such as this is more conservative. This, of course, results in a smaller protected service area than would have been calculated if we had used the less conservative assumptions. This result is in accord with the public policy considerations outlined above.

e. Power Flux Density and Fixed Mileage Limitation

93. As outlined in the previous section and in the *Notice*, we calculated that a station with a 200 watt EIRP will produce an "unfaded" power flux density of -75.6 dBW/m^2 at a distance of 15 miles from the station and that a minimally acceptable picture will be available at this distance 99.9% of the time using the reception equipment specified. On the basis of these results, we proposed to specify the protected service area boundary to be either the -75.6 dBW/m^2 power flux density contour or the locus of points 15 miles from the transmitter, whichever is closer to the transmitter. Our reasoning for specifying the maximum distance to the service area boundary as 15 miles was based on our calculations that it was impossible to provide reliable service beyond this distance. We are aware, as was detailed in the previous section, that if the assumptions relied upon to arrive at the 15 mile limitation were changed, a significantly different result would have been obtained. We believe that our assumptions, although conservative, were reasonable.

94. The 15 mile limitation on the protected service area boundary elicited a response from nearly all the commenters in this proceeding. Microband concluded, on the basis of what it claimed were more realistic assumptions, that it was possible to provide reliable service to sites located as far as 39 miles from the transmitter. On the basis of this conclusion, it suggested that boundary of the service area should be

determined by calculating the distance at which the faded signal-to-noise ratio, S/N(F), is 23 dB using the actual station EIRP, and the actual terrain and climatic factors for the area involved.[68] Cox Cable Communications Inc. (CCCI) called the 15 mile limit "unduly restrictive"[69]; and noted that only in those situations where it is possible to locate the transmitter at the center of the area to be served is it conceivable that a 15 mile radius service area would be adequate. CCCI suggested that a 30 mile radius protected service area is required to provide adequate service. South Florida Communications Inc. claimed that the proposed 15 mile limitation would drastically curtail its ability to provide an acceptable signal throughout its useful service area. It claims that the boundary of the protected service area should be the -75.6 dBW/m^2 power flux density contour regardless of the distance of the contour from the transmitter. South Florida claims the imposition of the 15 mile limitation would be inequitable and discriminatory to licensees such as itself that constructed stations to serve more than one service area with a single transmitter. It cites the fact that it was authorized a 100 watt transmitter to enable it to serve two population centers located equi-distant from its transmitter and that limiting the protected service area boundary location to fifteen miles from the transmitter would remove protection from many of the receive sites it is now serving. South Florida further suggests that if we should adopt the fifteen mile limitation that we "grandfather" protection for all receiver locations presently being served regardless of their distance from the transmitter.[70]

95. Contrasted with the above assertions are comments of R. L. Vega, an engineer who claims to have designed and constructed fourteen MDS stations and supervised the installation of over 15,000 MDS receivers. Mr. Vega agrees with the fifteen mile limitation and expressed the view that the claims of large service areas were illusory and not deserving of Commission protection. He also stressed the need for any new rules adopted to be clear and concise.[71] South Jersey Radio also supported the 15 mile limitation but expressed the view that strict enforcement of the service area "inviability" may not be in the public interest. It believes that by allowing minimal interference in the protected services area more service can be provided to the public.[72]

96. The National Telecommunications and Information Administration (NTIA) favored the use of the power flux density contour to determine the

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[68] Microband Comment, *supra* note 30, at 46, 53.

[69] CCCI Comments, *supra* note 4, at 1.

[70] Comments of South Florida Communication, Inc., General Docket No. 80-113, 1-8 (September 2, 1980).

[71] Vega Comments, *supra* note 22, at 2.

[72] Comments of South Jersey Radio, General Docket No. 80-113, at 1, 2 (September 25, 1980).

protected service area boundary but expressed serious reservations about the fixed mileage limitation. Its major concern was that it encouraged the use of omnidirectional antennas and circular service areas. NTIA suggested that a more appropriate alternative would be to permit an applicant to define an area to be served and to use the best possible combination of antenna location, antenna height, and antenna pattern to serve the area.[73]

97. All of the commenters from the ITFS community that addressed our fifteen mile proposal expressed the view that such a limitation was inappropriate for the ITFS. This claim was based on the fact that many ITFS systems serve receiver locations that are much more than 15 miles from the transmitter. Stanford University cited the fact that it serves one receiver 45 miles from its transmitter by using a high gain transmitting antenna on a portion of its transmitter output.[74] Several other ITFS licensees cited similar instances of service to distant receiver locations. Since are not adopting protected service area rules for the ITFS operators, there is no need to discuss the applicability of the 15 mile rule to such ITFS operations.

98. The only empirical data on the variation of received signal as a function of distance from the transmitter was submitted by Microband. The data was from field measurements made in St. Louis, Missouri; Columbus, Ohio; and Palo Alto, California. The receiver locations were characterized by Microband as being "not obviously blocked by a nearby building, trees or other obstruction." Microband further stated that "where rolling terrain was present, readings taken as close to the top of hill as possible, as opposed to locations in valleys."[75] At the time the data was taken, the Palo Alto and Columbus stations were equipped with 10 watt transmitters and the St. Louis station had a 100 watt transmitter. Most of the data taken in Palo Alto and Columbus were taken at sites located within 15 miles of the transmitter. Almost half of the sites in St. Louis were located between 15 and 20 miles from the transmitter.

99. The most noteworthy feature of the data presented by Microband was the wide variation from the predicted value of received power. Most of the measured signal level data was lower than the theoretically predicted level; however, there were a significant number of sites at which the measured signal level exceeded the calculated level. Microband did not offer an explanation for this result. The Corporation for Public Broadcasting (CPB) offered the following comment on the Microband data[76]:

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[73] NTIA Comments, *supra* note 29, at 8.

[74] Stanford Comments, *supra* note 23, Attachment at 4.

[75] Microband Comments, *supra* note 30, Appendix 1.

[76] Reply Comments of the Corporation for Public Broadcasting, General Docket No. 80-113, Engineering Statement at 4, October 1, 1980.

> Although there are numerous physical reasons why field measurements would fall *below* maximum free space predicted values (obstructions, atmospheric conditions, etc.); measurement which are *above* the maximum free space values should not occur. The only possible reason for a large number of measurements exceeding the maximum theoretical value is some systematic error in the measurement procedure. (emphasis in original)

This conclusion differs from the conclusion the Corporation for Public Broadcasting reached in its comments in General Docket No. 80-112 where it stated that "the expected received signal strength can actually increase and reach a maximum of 6 dB above the predicted free-space value, . . ."[77]

100. The Commission conducted an analysis of the data to quantify these variations. The absolute value of difference between the measured received power and the predicted received power was calculated for all the data submitted by Microband. The mean value and the standard deviation of these differences were calculated for each of the cities. The results of these calculations are as follows:

City	*Mean Value of Difference*	*Standard Deviation*
St. Louis	10 dB	6.7
Columbus	8.7 dB	7.76
Palo Alto	11.27 dB	9.89

The results clearly indicate that it is very difficult to make accurate predictions at these frequencies. The variations from the predicted received power levels were not correlated with distance. Variations from the predicted value occurred at all distances from the transmitter. Because these measurements were taken at locations that Microband claimed had an unobstructed path to the transmitter, it can be assumed that if locations were chosen at random so that obstructed or partially obstructed sites were used even wider variations would have been measured. We do not believe it is useful or possible to try to find theoretical explanation for these results. Rather, we believe that we should recognize that wide variations from theoretical predictions will occur and make reasonable rules that reflect the lack of precision in theoretical predictions. We also wish to stress again that the theoretical predictions themselves are the subject of considerable controversy as was shown by the comments we received in this proceeding.

101. Because we have concluded that both the calculated and measured power flux density contours are subject to wide variations, we do not believe that it is reasonable to rely solely on either method to define the boundary of the protected service area. We do believe, however, that there is a need to establish a protected service area boundary that is easy to use and understand so that the spectrum use rights of licensees are

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[77] Comments of the Corporation for Public Broadcasting, General Docket No. 80-112, Appendix 1, at 84 (September 26, 1980).

clear. Unlike calculated and measured contours, a fixed mileage boundary is easy to use and understand. It also can be generally related to both measured and calculated power flux density contours. For these reasons, we have concluded that the best way to define the boundary of the protected service area is in terms of a fixed distance from the transmitter.

102. Having decided to use fixed mileage to determine the maximum distance to the protected service area boundary, we are faced with the question of what distance to use. As indicated above and in the *Notice*, we calculated that the maximum distance at which a reasonable signal would be available was 15 miles. On the other hand, Microband calculated that under ideal conditions reasonable service can be obtained at 39 miles. Contrasted with these theoretical predictions are the results obtained by those with actual field experience in the MDS industry. In an appendix filed with its reply comments Microband's customer in the Washington, D.C. area, Marquee Television Network, Inc., states that even with 100 watts of transmitter power, it can serve 60.8% of the sites within 7 miles of the transmitter but that it can only serve 29.12% of the sites located between 7 and 30 miles from the transmitter.[78] Because the number of locations that can be served decreases with distance, it is fair to assume that the percentage of locations between 15 and 30 miles that could be served would be considerably less than 29%. These results are typical of the information we have received from MDS licensees requesting 100 watt transmitter power authorization. Although no comprehensive analysis has been made of all the data submitted in support of the 100 watt transmitter power requests, it is fair to say that all applicants have informed us that they are unable to provide service to many sites located much closer to the transmitter than 15 miles using 10 watts of transmitter power.

103. We have not been given any data either in this proceeding or elsewhere that indicate that a 100 watt omnidirectional transmitting station can serve a significant number of receiver sites located more than 15 miles from the transmitter. In commenting on Microband's Petition for Rulemaking requesting that the MDS power limitation be expressed in terms of effective radiated power and that the ERP limit be set at 1,000 watts, Telecommunications System Inc. (TSI) stated that[79]:

> It has been the experience of TSI that a minimum of 100 watts of transmitter output power is required to serve an area of average terrain with an adequate signal level within a 10 mile radius from the transmission facility; . . . .

This is typical of the type of information we have been furnished by MDS licensees concerning actual service area limitations. On the basis of this information, we have concluded that the maximum distance between the transmitter and the protected service area boundary should be 15 miles, for all stations using omnidirectional transmitting antenna.

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[78] Reply Comment of Microband Corporation of America, General Docket No. 80-113, Appendix A at 5 (October 14, 1980).

[79] Comments of Telecommunications System, Inc., RM-3221, 1 (November 20, 1978).

104. We acknowledge that the 15 mile limitation on the protected service area is somewhat arbitrary in nature and that arguments can be made that some distance other than 15 miles would be equally reasonable. But the record in this proceeding demonstrates there is a lack of certainty in both theoretical calculations and field test data as means of establishing the service area boundary and we have a responsibility to adopt rules that are easy to understand and apply. We believe that the 15 mile rule we are adopting today can be justified using either theoretical calculations or field test data; however, we are not resting the adoption of the Rule solely on either of these methods. Rather, we have concluded that the 15 mile limitation is not unreasonable, is easy to understand and use, and is representative of the areas actually being served by existing MDS stations using either 10 watt or 100 watt transmitters and omnidirectional transmitting antennas.

105. As noted above (paragraph 95), NTIA suggested that the fixed 15 mile radius protected service area reduced the flexibility afforded MDS operators in locating their facilities and selecting their transmitting antennas. NTIA suggest that, in many cases, it may be more practical to locate the MDS transmitter somewhere other than in the center of the potential service area. It cited the example of an operator attempting to serve a 30 mile diameter, circular service who found it more convenient to serve the area from the edge of the service than from the center. NTIA suggested we accommodate such varying circumstances by limiting the area of the protected service rather than the radius of the area. It further suggested that 700 square miles would be an appropriate standard.[80]

106. We agree that a uniform fixed mileage service area boundary makes most sense where a station radiates its power in an omnidirectional manner in the horizontal plane; however, when the horizontal plane radiation pattern is not omnidirectional some adjustment must be made. For example, when a station uses a single cardioidal pattern antenna the gain in the direction of maximum radiated power is 16 dB.[81] In the opposite direction, the gain is approximately 0 dB. It would not be reasonable to locate the protected service area boundary the same distance from the transmitter in the direction of 0 dB gain and in the direction of 16 dB gain.

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[80] NTIA Comments, *supra* note 29, at 8.

[81] The horizontal plane gain of either an omnidirectional or directional antenna varies with the vertical beamwidth of the antenna. Here we are assuming that the cardioidal antenna has the same vertical characteristics as the 13 dB gain omnidirectional antenna we used to calculate the -75.6 dBw/m_2 power flux density contour.

107. In this situation, the power radiated in the direction of 16 dB gain is 3 dB higher than the power radiated by 13 dB omnidirectional antenna assuming equal transmitter powers. If the service area boundary were extended out to that point at which the power flux density were equal to the power flux density at the boundary of the 13 dB omnidirectional antenna, the maximum distance to boundary would be approximately 21.2 miles from the transmitter. If we assume such a service area can be approximated by 21.2 mile radius semi-circle, we can estimate the area of the protected service to be approximately 706 square miles. The area of 15 mile radius circle is approximately 707 square miles. We agree that it is more reasonable to limit the protected service area of non-omnidirectional radiation patterns by area rather that by a fixed radius. So that disputes are easily resolved we must also adopt a clear and easy to understand method by which the boundary of such service areas can be determined. We believe the best method to accomplish this is to make the service area have the same shape as horizontal plane radiation pattern of the transmitting antenna and limit the total area served to 710 square miles. To accomplish this result the protected service area boundary will be defined by the following formula:

$$D_b = \frac{D_{bmax}}{\text{antilog}\left(\frac{G_{max} - G}{20}\right)}$$

In which the parameters are defined as follows:

D_b = the distance to the boundary in direction of interest,

G = the antenna gain in the direction of interest,

G_{max} = the maximum gain of the transmitting antenna,

D_{bmax} = the distance to boundary, in the direction of maximum gain that will make the total area of the protected service area equal to or less than 710 square miles, the antilog is to be computed using the base 10; all distances are in miles and all gains are in dB.

We stress that all distance must be adjusted so that the total area contained within the protected service area boundary does not exceed 710 square miles. We expect each applicant that does not intend to use an omnidirectional transmitting antenna to include a complete description of the proposed service area with its application. The description must include the number of square miles contained in the proposed service area and also contain sufficient detail to allow the easy determination of the distance from the proposed transmitter site to the boundary in all directions.

108. We recognize that an applicant could use such a narrow beamwidth transmitting antenna that the protected service area boundary

determined using this formula would be beyond the area that could be served by the transmitter. We have considered both limiting D^{bmax} and specifying a minimum antenna beamwidth to deal with this problem. However, we have decided this is not necessary. We believe that limiting the protected service area boundary to the radio horizon will adequately deal with this problem. Furthermore, there may be a case where it is necessary to use such an antenna to serve the desired service area.

f. Radio Horizon and Antenna Height

109. In the *Notice,* we also proposed that if the radio horizon were closer to the transmitting site than the boundary determined either by the fixed mileage limit or the power flux density contour then radio horizon would be the boundary. We made this proposal because there is little energy propagated beyond the radio horizon at MDS frequencies and consequently here would be no service available beyond the radio horizon. We proposed that for purposes of determining the service area boundary, we would consider the radio horizon to be the horizon determined by natural terrain features or significant man made structures. We further proposed not to consider the effect of receiver antenna height in determining the radio horizon.

110. Most of the commenters favored our proposal to fix the service area boundary at the radio horizon in those cases where it was closer than the power flux density contour or the fixed mileage distance. However, there were concerns expressed about how the radio horizon is determined and whether it would be feasible to limit the radio horizon by restricting transmitter antenna height.

111. For a particular transmitter site, the major factor that determines whether a natural terrain feature or a man made obstacle will become the radio horizon is the transmitting antenna height. NTIA suggested that the height of all MDS transmitters be limited so that the resulting radio horizon was located at the protected service area boundary determined by either a fixed mileage or a power flux density contour. NTIA suggested a formula that could be used to determine transmitting antenna height.[82] The formula was derived assuming a 4/3 earth radius propagation condition and a 100 foot high receiving antenna. In its reply comments, NTIA suggested a modified formula that was derived assuming a 30 foot high receiving antenna.[83] When evaluated for 15 miles, this formula yields a transmitting antenna height of 25.5 feet. In its reply comments Microband noted the antenna height implied by the NTIA suggestion and stated that radiation from such a height would not clear

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[82] NTIA Comments, *supra* note 29, at 5.

[83] Reply Comments of the National Telecommunications and Information Administration, General Docket No. 80-113, 3 (October 2, 1980).

most obstacles in most areas.[84]

112. In its comments Microband submitted an analysis in which it attempted to derive an analytical expression to predict the percentage of an area that would have an unobstructed propagation path to the transmitting antenna. The variables in the analysis were the transmitting antenna height, the receiver height, the obstacle height, the distance to the obstacle, and the distance to the desired receiver.[85] Although the Microband analysis is flawed in some respects, we agree with the basic result of the analysis;[86] that is, it is necessary to have a transmitting antenna height considerably higher than the obstacles located in a service area if there is to be reliable service to a significant portion of the area. In addition to its analytical model, Microband also submitted maps showing the variation of an obstructed area as function of antenna height for Birmingham, Alabama. These maps show that raising the transmitting antenna from 300 feet above ground level to 737 feet above ground level significantly reduces the area within 10 miles of the antenna that is blocked by natural terrain obstructions. We believe the maps and analysis submitted by Microband clearly demonstrate that it would be unwise to restrict transmitting antenna heights as suggested by NTIA. There is little doubt that if a restriction were applied, it would be impossible to serve any significant percentage of any service area. Thus, we reject NTIA's suggestion that we limit transmitting antenna heights.

113. We recognize that by declining to place a limit on transmitting antenna height, we could be encouraging MDS operators to place antennas higher than needed to serve their service area. However, we also recognize that it could be expensive to construct higher antennas; and if the additional height did not add significantly to the area that could be served, it would be unlikely that any MDS operator would spend the necessary money without realizing any return. In addition, our rules require all MDS operators to construct their facilities so as to not block cochannel use in adjacent areas. Thus if an operator did construct an unnecessarily high antenna, we have the regulatory tools to deal with such an occurrence. Finally, in regard to transmitting antenna height, we

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[84] Reply Comments of Microband Corporation of America, General Docket No. 80-113, 6 (October 14, 1980).

[85] Microband Comments, *supra* note 30, at 32-41.

[86] The analysis is flawed in two respects. First, it does not consider the effect of the width of the obstacle; and second, it masks the effect of the distance between the transmitting antenna and the obstacle. The first is important because a wide obstacle such as a natural terrain obstruction will shadow a much larger area than a narrow obstacle such as a building. The second is important because the amount of area shadowed by an obstacle varies with the distance between the obstacle and the transmitter. An obstacle close to the transmitter will shadow less area than an obstacle located further from the transmitter.

do not believe there is anything wrong with an MDS operator raising its antenna as Microband did in Birmingham if the purpose is to get its signal over obstructions within its service area.

114. We also have decided that in making the determination of whether an obstacle constitutes the radio horizon a reasonable receiving antenna height should be assumed. In many cases, a relatively modest receiving antenna height will overcome the blocking effect of an obstacle. NTIA in its reply comment suggested that 30 feet was the typical height of receiving antennas.[87] Microband also used this height in its analysis.[88] We agree that 30 feet is representative of the actual heights at which antennas generally will be mounted on private residences. For these reasons, we have decided to use a 30 foot receiving antenna to determine the location of the radio horizon. We also expect all protected service area calculation to be made assuming a 30 foot receiving antenna height.

115. In summary, the protected service boundary will be the radio horizon in those situations in which the radio horizon is closer to the transmitting antenna than the protected service area boundary determined as above. The location of the radio horizon is to be determined using the actual transmitter height and a 30 foot receiving antenna height.

g. Limitations Imposed by Preexisting Cochannel Station

116. In the *Notice*, we observed that there were a number of existing MDS operations in which interference already existed within the proposed protected service area boundary. That is, there are situations in which the ratio of the desired signal to an undesired cochannel signal is less than 45 dB within the protected service area of the desired station. Because of our belief that it would not be useful to disturb existing situations where the operators had adapted to the interference, we proposed to "grandfather" all such situations. To accomplish this, we proposed to limit the service area of such stations to the boundary at which the ratio of the desired signal to the undesired signal is 45 dB.

117. We received little comment on this proposal. Microband basically supported the concept but stressed that once a contour was established for a station, it should be permanent unless voluntarily changed by the applicant.[89]

118. We agree with Microband. With regard to the permanence of the protected service area, we stress that we proposed the interference contour boundary only in those cases where the stations were already operating and had reached an accommodation. We expect there to be very few such situations. In most cases, the protected service area boundary

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[87] NTIA Reply Comment, *supra* note 81, at 3.

[88] Microband Comments, *supra* note 30, at 37, 54.

[89] *Id.*, at 54.

will be described above and will be permanent. All applicants must show that they will not cause harmful interference within the protected service area of any existing or previously applied for station with an expired cutoff date located within 50 miles of the proposed station or that have an unobstructed propagation path to the protected service area of any such station. An application that does not contain such a showing will not be accepted for filing. The protected service areas of existing stations or previously proposed stations with expired cutoff dates will not be changed to accommodate additional more closely spaced stations.

119. There is one situation involving the reduction of the protected service area boundary by "grandfathered interference" that requires clarification. The reason we proposed to limit the protected service boundary to the interference contour produced by an existing or previously proposed station was that we did not want to allow the new rules to be used to generate controversies where the licensees and applicants had accommodated themselves to the situation. The question then is should a subsequent applicant be required to show noninterference in the protected service area boundary determined by the fixed mileage boundary (or the radio horizon if applicable) or should it only be required to show noninterference within the area bounded by the interference contour? On the one hand, it could be argued that because the protected service area was reduced only to avoid a conflict between stations that were operating prior to the adoption of these rules or had agreed for their own reasons to accept interference from each other, it would not be fair to let a new applicant benefit from such accommodations. This argument is especially persuasive in those situations where the licensee with the reduced service area is providing service in the unprotected area that lies within 15 miles by the use of good engineering techniques. A new entrant could cause a level of interference that could negate the results of good engineering solutions. For example, if a licensee had oriented its receiving station antennas in the unprotected area so that there was a small decrease in gain in the direction of the desired station but a much larger reduction in gain in the direction of the undesired station that caused the service area reduction, it could be providing an interference free picture. A new station could be so located that it would cause a much higher level of interference and thus negate the engineering solution the licensee had implemented.

120. On the other hand, it could be argued that since those persons living in the unprotected area may not be able to get an interference free signal from the existing station using standard techniques, there is no reason to protect its signal in that area.

121. After considering these arguments, we have concluded that it would better serve the public interest if we granted the existing station a protected service area determined by the above rules relative to new

applicants and use the reduced protected service area only in cases involving the station that caused the reduction. This result has two benefits. First, it encourages the station with the reduced service area to develop engineering solutions to protect against the interfering station. Second, it makes it more likely that locations in unprotected areas will get service because it limits the interference within the unprotected area to that caused by one station.

h. Adjacent Channel Considerations

122. In the *Notice,* we expressed the view that adjacent channel operation was feasible if the transmitting antennas were colocated and cross-polarized and the EIRP of both stations was the same. In particular, we concluded that if the receiving antennas could provide 15 dB of cross-polarization discrimination between the desired signal and an undesired adjacent channel signal, then, because the signal from the colocated transmitters would be the same at all receiving sites, the 15 dB protection ratio we had concluded was necessary for adjacent channel operation would be achieved. Because we have concluded here that the required protection ratio is only 0 dB, we believe more strongly that such operation is feasible. During the pendency of this proceeding, colocated adjacent channel stations have been successfully operated in Phoenix. Other colocated adjacent channel operations are expected to begin soon.

123. The operation of noncolocated adjacent channel stations presents more difficult issues. In Appendix 3 of the *Notice,* we developed an analytical model to predict the effect noncolocated adjacent channel stations would have on each other. We developed the model assuming that the transmitting stations used copolarized antennas,[90] had the same EIRP, and that all receive sites were equipped with the standard antenna oriented to receive the maximum desired signal. We also assumed that the ratio of the desired signal to the undesired adjacent channel signal had to be at least 15 dB for satisfactory operation. Using this model, we showed that if the stations were located less than ½ mile apart and the transmitting antennas were cross-polarized each station would lose less than 0.3% of its 15 mile protected service area. That is, we showed the area that could not be served because of adjacent channel interference was less than 2 square miles. When the transmitter separation was increased to 2 miles, the model showed that less than 4% of the service area was lost.

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[90] We made the calculation using copolarized transmitting antennas and then determined contours of additional protection required to provide the 15 dB of adjacent channel protection. It was assumed that most of the protection would come from cross-polarizing the transmitters.

124. On the basis of this analysis, we concluded that because the 0.3% loss of service area was "diminutive" and would have little effect on the operation of either station, we could exclude from the protected service area of each station that area in which adjacent channel interference occurred so long as the area excluded did not exceed 0.3%. This proposal was contained in proposed new Section 21.902(d)(4).

125. We received very little comment on the technical analysis we presented. Dr. William Kincheloe of Stanford University did suggest that our reliance on cross-polarization to achieve adjacent channel operation was misplaced because there is likely to be significant signal depolarization when the propagation path exceeds 7 miles.[91] We agree that the likelihood of achieving significant cross-polarization discrimination (15 - 20 dB) decreases as the propagation path length increases. However, because adjacent channel interference is greater near the undesired station and because the desired and undesired transmitters are to be located near each other, significant depolarization is not likely to occur between the transmitters and the receiving sites where cross-polarization discrimination is most needed; that is near the undesired transmitter. At receiver sites located near the edge of the protected service area, the propagation path length to each transmitter will be approximately the same and thus the signal levels at the receiver will be approximately the same. If 15 dB of protection were required as assumed in the *Notice* and all, or most, of the polarization discrimination were lost, significant adjacent channel interference might occur. However, as was discussed above, it is reasonable to expect television receivers to operate successfully even when the undesired signal *exceeds* the desired signal by as much as 5 dB. Thus, we do not believe there will be harmful adjacent channel interference at those sites located more than 7 miles from the transmitters where significant depolarization of the signal is more likely to occur. Furthermore, the amount of adjacent channel interference that will occur is less than predicted in the *Notice* because of the very conservative adjacent channel protection ratio (15 dB) used to make the calculations.

126. Microband criticized our proposal to authorize noncolocated adjacent channel operations that would reduce the service areas of existing stations. Microband argued that, although the area lost might constitute only 0.3% of the total service area, it could include a much larger percentage of the sites actually being served. Microband suggested that the better method would be to require adjacent channel applicants to show the effect of the proposed operation on existing operations and let the Commission make a case-by-case determination of whether the amount of area lost is significant.[92] Contrasted with Microband's views

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[91] Stanford Comments, *supra* note 23, Attachment at 7.

[92] Microband Comments, *supra* note 30, at 61-62.

were those of Richard L. Vega who strongly opposed any rule that would require an adjacent channel applicant to show how it would avoid causing harmful adjacent channel interference. Mr. Vega states that "[e]ither the Commission believes that adjacent channel transmissions are possible or they doubt it!"[93]

127. As we stated in the *Notice*, we believe that two conclusions are irrefutable. First, it is possible to achieve successful adjacent channel operation using MDS channels 1 and 2 if the transmitting antennas are cross-polarized, colocated, and have the same EIRPs. Second, if the transmitters are not colocated, there will always exist an area surrounding the undesired transmitter where it will be virtually impossible to receive an interference-free picture. The size of the area can be reduced by carefully engineering but there will always be some area in which harmful adjacent channel interference will occur. Thus, the policy choice is between requiring colocation and insuring interference-free operation and allowing some flexibility in adjacent channel transmitter location. In the *Notice*, we proposed to allow adjacent channel transmitters to be located as much as ½ mile apart and to reduce the protected service areas of each station by not including the area near the adjacent channel station where harmful interference will occur.

128. While this may be the best policy to follow when both stations are proposed at approximately the same time, we do not believe it is the best policy when the second station is applied for after the first station has either begun operation or has made substantial progress toward beginning operation. In the case of an operating station, a new adjacent channel station located within ½ mile would cause interference in that portion of the existing station's protected service area where the best signal generally is available—that is within a few miles of the transmitter. Thus, it is likely, as Microband suggests, that a noncolocated adjacent channel station could disrupt the service of a substantial number of the existing station's customers. For this reason, we believe that the better course to follow is to require the adjacent channel applicant to show the effect its proposed operation will have on existing and previously proposed operations. Thus, we will require all applicants proposing noncolocated adjacent channel operations to show first, why they are unwilling or unable to colocate their proposed facilities with existing or previously proposed operations and second, to show how much harmful interference will be caused by the proposed noncolocated operation. We will then make a decision, on a case-by-case basis, of whether to accept the application. We believe that variations from case-to-case are so wide that it is not feasible to adopt a single rule that would apply to all situations. Furthermore, we remind all existing licensees and permittees of their obligation to "make

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[93] Vega Comments, *supra* note 30, at 61-62.

exceptional efforts . . . to avoid blocking potential adjacent channel use in the same city . . . ." 47 C.F.R. § 21.902(a).

129. The operation of adjacent channel stations also can be affected by the radiation of out-of-band emissions by station transmitters. For example, if a channel 1 transmitter emits a significant amount of energy within the band assigned to MDS channel 2, a channel 2 receiver could experience harmful *cochannel* interference. Section 21.908 of the rules, 47 C.F.R. § 21.908, contains the technical requirements for MDS transmitters. This section requires that a transmitter rated at 10 or more watts (this includes virtually all MDS transmitters) must attenuate all emissions that are more than 3 MHz above or below the edges of the assigned band at least 40 dB relative to the peak visual output power. Emission standards for the bands between the authorized band edges and 3 MHz above and below the band edges are contained in Section 73.687(a)(3) of the Rules, 47 C.F.R. § 73.687(a)(3), that applies to broadcast television stations. This section requires that all emissions in these bands be attenuated at least 20 dB below a reference level described in Section 73.687(a)(4) except that, for color television transmission, the emission at 2.32945 MHz below the lower band edge must be attenuated at least 42 dB below the reference level. The nature of the reference level specified in Section 73.687(a)(4) is such that the attenuation required in these 3 MHz bands is approximately 38 dB relative to the peak visual signal.[94] Thus, the MDS rules only require that transmitter out-of-band emissions to be attenuated 40 dB below the peak visual signal. This means that one colocated adjacent channel transmitter can emit signals that are only 40 dB below the peak visual power of a colocated transmitter and are within the authorized band of that transmitter. Because these out of band emissions are within the band of the second channel, they will appear as cochannel interference that is only 40 dB below the desired signal and thus will not meet the 45 dB cochannel interference standard. Of course, if the adjacent channel transmitters are cross-polarized, there could be as much as 20 dB of additional attenuation of the out-of-band emission by the receiving antenna thereby reducing the level of the undesired signal to 60 dB below the desired signal. A cochannel signal at this level would not cause perceptible interference.

130. During the pendency of this proceeding, we authorized Channel View, Incorporated to conduct an experiment in Salt Lake City to test the feasibility of adjacent channel operation.[95] The experiment was conducted by Channel View, the licensee of MDS channel 1 in Salt Lake City, with

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[94] Erickson, D. E., *Measuring TV Sidebands & Spurious Emissions*, Broadcast Engineering, May 1982, at 70.

[95] Experimental Station KM2XBN, Salt Lake City, Utah; File No. 8666-ED-PL-81. *See also*, Mackey R. J., *MMDS—Where Does It Stand Six Months After FCC Approval?* 3

the assistance of American Home Theaters, Channel View's customer in Salt Lake City. The experiment was conducted using the four E group channels and the four F-group channels that were than allocated to the ITFS. These eight channels are assigned the following bands:

E_1 2596 - 2602 MHz	F_1 2602 - 2608 MHz
E_2 2608 - 2614 MHz	F_2 2614 - 2620 MHz
E_3 2620 - 2626 MHz	F_3 2626 - 2632 MHz
E_4 2632 - 2638 MHz	F_4 2638 - 2644 MHz.

Thus all the channels except E_1 and F_4 were operated in the presence of both an upper adjacent channel and a lower adjacent channel. E_1 operated in the presence of only an upper adjacent channel and F_4 operated in the presence of only a lower adjacent channel. The experiment was conducted with the transmitting antenna for the channels in one group cross-polarized relative to the transmitting antennas of the other group. Because the experiment was being conducted to show the feasibility of 8-channel operation, the receiving antennas were oriented with their polarization plane at 45° to the horizontal plane, that is halfway between vertical and horizontal polarization.[96] This allowed the receivers to receive the same level of signal from both the E group and F group transmitters. A horizontally polarized signal received with the receiving antenna oriented at this angle is only 3 dB lower than the signal that would be received if the receiving antenna were oriented horizontally. A vertically polarized signal received by the same antenna is also only 3 dB lower than the signal that would be received if the antenna were vertically polarized. Thus, the received signals were of equal amplitude and only 3 dB lower than the signals that would have been received in either the vertical or horizontal orientation. Of course, if the antenna were either horizontally or vertically polarized the received signal on the cross-polarized channel would be approximately 20 dB lower than the signal received on the copolarized channel. During the experiment, it was determined the out-of-band emissions from the adjacent channel transmitter had to be kept at least 51 dB below the peak video power to avoid perceptible interference. That is a transmitter that only met the current MDS out-of-band emission requirements would have caused adjacent channel interference when operated in this manner. The transmission systems in the experiment were adjusted so that the out-of-band emissions were 60 dB below the peak visual signal and successful 8-channel operation was achieved.

Private Cable at 16 (January, 1984) (This article contains a discussion of some of the relevant technical aspects of the Salt Lake City experiment.).

[96] There is nothing in the rules we are adopting today or in any existing rules that preclude licensees from operating adjacent channels with the same polarization. We believe this would be desireable in some situations because the additional 3 dB of signal that would be obtained could improve the level of service provided.

131. These experimental results validate the conclusion that if cross-polarized, colocated, adjacent channel transmitters are used and if receiving antennas can provide 20 dB of cross-polarization discrimination, successful adjacent channel operation using multiple channels can be achieved. However, because we believe, as many of the commenters in this proceeding suggested, that in some cases it may be difficult to achieve this level of cross-polarization discrimination, we strongly recommend that all new licensees use transmitters that achieve more than the required out-of-band emissions suppression. In this regard, it should be noted that Section 21.908(b) requires that greater attenuation of out-of-band emissions be achieved if harmful interference occurs. In the Further Notice of Proposed Rulemaking we are adopting today, we are proposing to change the required out-of-band emission attenuation from 40 dB to 60 dB.

132. If the adjacent channel transmitters are not colocated, the probability of the out-of-and emissions causing harmful interference is much greater. For any achievable level of out-of-band emission suppression, there will always be an area in the vicinity of a non-colocated adjacent channel station in which the out-of-band emission will cause harmful interference. Reducing these emissions, as suggested above, will reduce the size of this area but it cannot be eliminated. We have not attempted to develop an analytical model to determine the size of this area but we believe the results would be qualitatively similar to those in Appendix 3 of the *Notice*. It should be stressed in this regard that this problem cannot be solved or mitigated by improved receiver design. The signals of concern here are in the same band as the desired signal and therefore will always be a potential source of harmful interference. For these reasons, we strongly urge all new MDS permittees to make exceptional efforts to colocate adjacent channel facilities. In those cases in which this cannot be done, we will proceed as described above. That is, in those cases where the applications were filed at the same time, we will not protect a station against harmful interference that is caused by the non-colocated adjacent facility. In the case of a subsequently filed application, we will require that the applicant submit an analysis of the harmful interference that will occur within the protected service areas of existing or previously proposed adjacent channel facilities as result of out-of-band emissions from the proposed new facility. We will make a case-by-case determination of whether to accept such applications.

133. Finally, we wish to address the issue of out-of-band emissions from ITFS transmitters. Section 74.936(b) of the Rules, 47 C.F.R. 74.936(b), requires that all ITFS transmitters rated at 10 watts or more attenuate all emissions more than 3 MHz above or below the assigned channel edges at least 40 dB relative to the peak visual output power. This

requirement is the same as the MDS transmitter requirement. However, Section 74.938(b), 47 C.F.R. § 74.938(b), exempts ITFS operators from complying with Section 73.687(a)(3) that applies to lower sideband emissions except in those cases in which "interference to reception of another station results . . . ." There are several questions raised by these sections. First, what level of protection from existing adjacent channel ITFS stations will new MDS stations using the E or F group channels be entitled to? The existing ITFS stations that could cause such interference include both grandfathered ITFS users of the E and F group channel and the operators of D_4 and G_1, the channels that "bookend" the reallocated E group and F group channels.

134. In reallocating the spectrum from the ITFS to the MDS, one of our primary objectives was to cause as little disruption as possible to existing ITFS operations. To accomplish this goal, we "grandfathered" all ITFS licensees, permittees, and applicants of the reallocated channels. What this means in the present context is that such grandfathered operators that have already constructed will not be required to modify or replace existing equipment. If an adjacent channel MDS operator believes that its operation would be improved if the ITFS facilities were improved, it is free to furnish new equipment for the ITFS operator. We expect that ITFS operators will cooperate by accepting reasonable offers to furnish new equipment made by adjacent channel MDS operators. Of course, the same result will apply to both existing E and F group transmitters and existing channel G_4 and channel G_1 transmitters. Thus when there are pre-existing adjacent channel ITFS operators, we will not protect the MDS station from harmful interference that occurs as a result of the operation of the ITFS station.

135. Prior to the adoption of the *Multichannel Order* a number of E-group and F-group ITFS applications were filed. Since that time many of these applications have been granted; however, many of the recipients of these grants will not have constructed their facilities by the date of this order. The question raised by this situation is what kind of adjacent channel protection should such licensees be required to give to an adjacent channel multichannel MDS station. For example, assume that a grandfathered E-group ITFS applicant has not yet constructed facilities in an area where we have received a number of F-group MDS applications. The best way to proceed would be to colocate the two facilities and cross-polarize the transmitting antennas. In addition, if the effects of out-of-band emission are to be mitigated, the ITFS transmitter should at least meet the existing MDS transmitter out-of-band emission requirement. As stated above, it would be even better if both transmitters had out-of-band emissions that were 60 dB below the peak visual power. Many of the commenters in this proceeding made the point that in many cases because

of legal restrictions, it will be impossible for ITFS and MDS facilities to be colocated. Specifically, it was suggested that many ITFS transmitters are located on public property that is not available for private use.[97] We believe that in such situations the ITFS operator should use a transmitter that emits the lowest possible level of out-of-band emissions. Specifically, such transmitters shall comply with Section 73.687(b)(3) as is required by 74.938(b) when interference occurs, as it most likely would if this standard were not met. In addition, although Section 74.936(b) only requires that the emissions beyond 3 MHz from the band edges be attenuated only 40 dB below the peak visual power (for transmitter rated at 10 watts or more), 60 dB of attenuation as specified in Section 73.687(i) should be achieved if at all possible.

136. We will, therefore, not protect a multichannel MDS station from harmful interference that is caused by a colocated or non-colocated E or F group ITFS facility constructed after the date of this order if that ITFS station transmitter complies with Sections 73.687(b)(3) and 74.936(b) of the Rules. If such an ITFS station uses a transmitter that does not comply with these sections, it will not be allowed to continue operation.

137. We will treat D_4 and G_1 ITFS stations constructed after the date of this order in a similar manner. That, is we will not protect a MDS station from harmful interference that occurs when the transmitter of a D_4 or G_1 station is in compliance with Sections 73.687(b)(3) and 74.938(b).

3. Summary of Protected Service Parameters

138. An MDS station will be protected from harmful cochannel and adjacent channel interference as defined herein within an area described as follows:

i. for a station using a transmitting antenna with an omnidirectional horizontal plane radiation pattern the boundary of the protected service area will be 15 miles;

ii. for a station using a transmitting antenna with a nonomnidirectional horizontal plane radiation pattern the boundary of the protected service area will be the locus of all points located at distances from the transmitter as determined by the following equation;

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[97] Comments of the Corporation for Public Broadcasting, General Docket No. 80-113, 14 (September 2, 1980).

$$D_b = \frac{D_{bmax}}{\text{antilog}\left(\frac{G_{max} - G}{20}\right)}$$

in which the parameters are defined as follows:

D_b = the distance to the boundary in the direction of interest.

G = the transmitter antenna gain in the direction of interest

G_{max} = the maximum antenna gain

D_{bmax} = the distance to the boundary in the direction of maximum antenna gain that will make the total area within the boundary less than or equal to 710 square miles.

All the distances are in miles; the gains are in decibels and are relative to an isotropic antenna; and the antilog is taken to the base 10.

C. Service of a Single Metropolitan Area

139. In the *Notice*, we proposed to require that each MDS station be engineered so that it would serve only one metropolitan area with a population that exceeded 50,000. The proposal was contained in proposed Section 21.902(b)(6). This proposal did not elicit much comment. Microband stated that it opposed the Rule and also suggested that it would be difficult to administer because of a lack of a definition of what constitutes a metropolitan area.

140. Upon further consideration, we have concluded that the Rule is not necessary. Existing Section 21.902(a) already requires that stations be engineered to avoid blocking cochannel use in adjacent cities. We also agree with Microband's contention that the Rule would be difficult to administer.

III. Notice of Inquiry Issues

141. In the *Notice*, we asked a number of questions concerning several issues that we believe could be a source of future problems if we were to authorize more than two adjacent channels. We did not receive very many substantive comments in response to our questions. For this reason, we will only discuss each of these issues on which we received substantive comments.

A. Coordination

142. In the *Notice*, we expressed the belief that any applicant in the 2500-2690 MHz band regardless of the service should submit a technical analysis of the affect its operation would have on existing or previously applied for stations on the same or adjacent channels. The proposed rules in the *Notice* contained an extensive revision of Section 21.902 that is now used in the MDS to avoid interference problems. We asked what if any changes would be appropriate if these procedures were made applicable to

the 2500-2690 MHz band. We also asked for comment on the advisability of using coordination procedures similar to those in Section 21.100(d) in this band.

143. We received little comment on this issue. John F. X. Browne did indicate that the coordination between ITFS and MDS applicants would be desirable. He also pointed out that a procedure similar to that set out in Section 21.100(d) would not be appropriate because that procedure is adapted to point-to-point microwave use whereas any procedure to be used in the 2500-2690 MHz band would have to deal with point-to-multipoint interference problems.[98] We believe that the rules we are adopting today adequately deal with the required coordination between MDS and ITFS users of the 2500-2690 MHz band. It is not clear, however, that we have adequate procedures to deal with interference problems that might occur between and among ITFS applicants, permittees and licensees. Because of the increased ITFS filing activity that has resulted from our decision to allow ITFS applicants to lease the excess capacity that is available on their system, there are many more cases that require that we decide whether ITFS applications are mutually-exclusive. We believe that a procedure similar to that used in the MDS could be used in the ITFS. We did not propose to adopt such a procedure in the *Notice* nor are we prepared to do so now. We believe that we should wait until we have more experience with the ITFS leasing activity before proposing a procedure.

144. We also have pending before us a Petition for Rulemaking submitted by Microband Corporation (RM-3232)[99] which requests, *inter alia,* that we make Section 21.100(d) with certain changes applicable to the MDS. For the reason stated above, we do not believe that such a prior coordination procedure is suitable for the MDS. Furthermore, we believe that the service area definitions and associated rules we are adopting today deal more effectively with the other issues raised by Microband in its petition, and hence we shall deny the petition.

B. Other Notice of Inquiry Issues

145. In the *Notice,* we asked also for comment on spuriously generated interference, receive equipment considerations, channel plans, power and service area limitations, and transmitter stability. As noted above, we did not receive extensive comments on these questions. In the *Multichannel Order,* we considered the various channel plans suggested in the proceeding and in this proceeding. We do not believe that this issue requires further comment. However, we do believe that all of the other

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[98] Browne Comments, *supra* note 17, at 7.

[99] Petition for Rulemaking RM-3232, In the Matter of Amendment of Part 21 of the Commission's rules to make the prior coordination requirement of Subsection 21.100(d) applicable to Multipoint Distribution Service; Microband Corporation of America (October 27, 1978).

issues listed are vital to the successful operation of both MDS channel 1 and channel 2 stations and to all multichannel MDS stations that might be authorized in the future. We believe that if we propose specific rule changes, we will receive more and more focused comments on these important issues. For this reason, we are today adopting a Further Notice of Proposed Rulemaking in which we propose specific rule changes addressing these issues.

IV. Other Matters

146. In the *Notice*, we stated our intention to deal with two Pending Rulemaking Petitions in this proceeding. One of these, RM-3540, filed by Microband requested that we investigate the feasibility of exchanging the existing MDS channel 2 band for a 6 MHz band allocated to another service. We resolved the issues raised by Microband's Petition in the *Multichannel Order* and thus do not need to consider it in this proceeding.[100]

147. The other Petition, RM-3537, filed by Telecommunications Services, Inc. (TSI) requested that we amend Section 21.902(c) to establish minimum criteria for the acceptance of MDS applications.[101] In particular, TSI suggested an amendment to Section 21.902(c) that it claimed would provide for the acceptance of all applications that proposed locating a new station more than 30 miles from an existing or previously proposed station and were also cross-polarized with all existing or previously proposed stations located within 40 miles of the proposed station. On the basis of the adjacent channel and cochannel interference analysis contained in this order, we have concluded that the rule changes proposed by TSI would not adequately protect existing stations from harmful cochannel and adjacent channel interference. We also believe that the rules we are adopting in the Order provide adequate protection for existing stations and also give new applicants clear guidelines for locating new cochannel and adjacent channel stations. For these reasons, we have concluded that it would not be in the public interest to consider further the suggestions made by TSI and we are therefore denying its petition.

V. Regulatory Flexibility Act

148. The Regulatory Flexibility Act of 1980 does not apply to rules adopted after January 1, 1981 when the underlying notice of proposed rulemaking was adopted before that date. The underlying *Notice of*

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[100] *Multichannel Order, supra* note 6, at 33,899.

[101] Petition for Rulemaking RM-3537, In re: Amendment of Part 21 of the Commission's Rules to define Interference Studies Required by Subsection 21.902(c) and to Establish Minimum Criteria for the Acceptance of Newly Filed Applications. Proposing Construction of New MDS Stations or the Amendment of Existing MDS Authorizations, Telecommunications Systems, Inc. (December 7, 1979).

Inquiry of Proposed Rulemaking in this proceeding was adopted March 19, 1980. Accordingly, there is no need for certification under the Regulatory Flexibility Act. See 5 U.S.C. § 601.

VI. Conclusion

149. We believe that we have in this *Report and Order* adopted standards for the regulation of the Multipoint Distribution Service that are reasonable, easy to understand and apply, and are in the public interest. We believe that the rules and policies set out herein should insure that MDS licensees are guaranteed protection from harmful cochannel and adjacent channel interference in the area in which they can provide reliable service while at the same time allowing for the licensing of new stations as close to existing stations as is technically feasible.

150. Accordingly, IT IS ORDERED, pursuant to Sections 4(i) and 303(r) of the Communications Act, 47 U.S.C. §§ 154(i), 303(r), that Title 47 of the Code of Federal Regulations IS AMENDED as described in Appendix B. These amendments shall become effective thirty days after publication of this Order in the Federal Register.

151. IT IS FURTHER ORDERED that the Microband Petition for Rulemaking RM-3232 IS DENIED and that proceeding IS TERMINATED.

152. IT IS FURTHER ORDERED that the Telecommunications Systems, Inc. Petition for Rulemaking RM-3537 IS DENIED and that proceeding IS TERMINATED.

FEDERAL COMMUNICATIONS COMMISSION

WILLIAM J. TRICARICO, *Secretary*

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* Appendix A-may be seen in FCC Dockets Branch, 1919 M Street, N.W. Washington, D.C. 20554.

APPENDIX B

Part 21 of Chapter I of Title 47 of the Code of Federal Regulations is amended as follows:

1. Section(s) 21.901 (c) and (e) are revised to read as follows:

§ 21.901 Frequencies.

* * * * *

(c) Channel 2 will be assigned only where there is evidence that no harmful interference will occur to any authorized point-to-point facility in the 2160 - 2162 MHz band. Channel 2 may be assigned only if the transmitting antenna of the station is to be located within ten (10) miles of the coordinates of the following metropolitan areas:

Principal City	Coordinates

* * * * *

(e) Where adjacent channel operation is proposed in any area, the preferred location of the proposed station's transmitting antenna is at the site of the adjacent channel transmitting antenna. If this is not practicable, the adjacent channel transmitting antennas should be located as close as reasonably possible.

2. Section 21.902 is amended by revising subsection (b) and (c); adding new subsections (d) (e) (f), (g) and (h); and revising existing subsection (d) and redesignating it subsection (i) as follows:

§ 21.902 Frequency Interference.

* * * * *

(b) * * *

(1) Not enter into any lease or contract or otherwise take any action that would unreasonably prohibit location of another station's transmitting antenna at any given site.

(2) Cooperate fully and in good faith to resolve interference and transmission security problems.

(3) Engineer the system to provide at least 45 dB of cochannel interference protection within the protected service areas of all other authorized or previously proposed stations that transmit, or may transmit, signals for standard television reception.

(4) Engineer the station for adjacent channel operation and, if transmissions are to be provided for standard television reception, insure that, whenever possible, the ratio of the signal transmitted to the signal of any authorized, or previously proposed, adjacent channel station is less than 0 dB when measured at the output of a standard antenna located anywhere within the protected service area of the adjacent channel station and oriented to receive the maximum possible adjacent channel signal.

(c) * * *

(1) An analysis of the potential for harmful co-channel interference with any authorized or previously proposed stations(s), if: (i) the proposed transmitting antenna has an unobstructed electrical path to any part of the protected service area of any other station(s) that utilize(s), or would utilize, the same frequency; or (ii) if the proposed transmitter is within 50 miles of the coordinates of any such station; or (iii) if the great circle path between the proposed transmitter and the protected service area of any such station is 150 miles or less and 90 percent or more of the path is over water or within 10 miles of the coast or shoreline of the Atlantic Ocean, the Pacific Ocean, the Gulf of Mexico, any of the Great Lakes, or any bay associated with any of the above. (See §§ 21.701(a), 21.901(a) and 74.902 of this chapter);

(2) An analysis of the potential for harmful interference with any authorized or previously proposed station(s), if the proposed transmitting antenna has an unobstructed electrical path to any part of the protected service area of any other station(s) that utilizes, or would utilize, an adjacent channel frequency (see §§ 21.701(a), 21.901(a) and 74.902 of this chapter);

(3) In the case of a proposal to operate a non-colocated station within the protected service area of an authorized, or previously proposed, adjacent channel station, an analysis that identifies the areas within the protected service areas of both the authorized or previously proposed adjacent channel station and the proposed station that cannot be protected as specified in § 21.902(b)(4) and an explanation of why the proposed station cannot be colocated with the existing or previously proposed station.

(4) In the case of a proposal for use of channel 2, an analysis of the potential for harmful interference with any authorized point-to-point station located within fifty (50) miles which utilizes the 2160 - 2162 MHz band; and

(5) An analysis concerning possible adverse impact upon Mexican and Canadian communications if the station's transmitting antenna is to be located within 35 miles of the border.

(d) Subject to the limitations contained in subsection (e) of this section each MDS licensee shall be protected from harmful electrical interference as determined by the theoretical calculations within an area described as follows:

(1) For a station using a transmitting antenna with an omnidirectional horizontal plane radiation pattern the boundary of the protected service area will be 15 miles from the transmitter site.

(2) For a station using a transmitting antenna with a non-omnidirectional horizontal plane radiation pattern the boundary of the protected service area will be the locus of all points located at distances from the transmitter as determined by the following equation;

$$D_b = \frac{D_{bmax}}{\text{antilog}\left(\frac{G_{max} - G}{20}\right)}$$

in which the parameters are defined as follows:

D_b = the distance from the transmitter site to the boundary in direction of interest;

G = the transmitter antenna gain in the direction of interest;

G_{max} = the maximum antenna gain

D_{bmax} = the distance to boundary, in the direction of maximum gain that will make the total area of the protected service area equal to or less than 710 square miles;all distances are in miles, the gains are in dB relative to an isotropic antenna, and the antilog is taken to the base 10;

(3) Except that when the electrical horizon determined using the transmitting antenna height, a 30 foot receiving antenna height, and assuming ⁴⁄₃ earth radius propagation conditions, is closer to the transmitter than boundary described in (1) or (2), the electrical horizon shall be the boundary of the protected service area.

(e) No MDS licensee will be protected from harmful interference caused by:

(1) Any station with an earlier filing date.

(2) Any station that was authorized before July , 1984

(3) Any multichannel MDS station whose application was pending on September 9, 1983.

(f) In addressing potential harmful interference in this service the following definitions shall be used:

(1) Co-channel interference is defined as the ratio of the desired signal to the undesired signal present in the desired channel, at the output of a reference receiving antenna oriented to receive the maximum desired signal. Harmful interference will be considered present when a free space calculation determines that this ratio is less than 45 dB.

(2) Adjacent interference is defined as the ratio of the desired signal to undesired signal present in an adjacent channel, at the output of a reference receiving antenna oriented to receive the maximum desired signal level. Harmful interference will be considered present when a free space calculation determines that this ratio is less than 0 dB except that in cases between MDS stations and Instructional Television Fixed Service stations constructed before May 26, 1983 the ratio shall be less than 10 dB.

(3) For purposes of this section, all interference calculations involving receive antenna performance shall use the reference antenna characteristics shown in figure 1.

(g) All interference studies submitted pursuant to subsection (c) of this section shall be served on all licensees and permittees of, and applicants for the stations considered in such studies. This service shall occur on or before the date of submission and a list of all parties so served shall be submitted with the study.

(h) For purposes of § 21.31(a) an MDS application for a facility that would cause harmful electrical interference within the protected service area of any authorized or previously proposed station will be presumed to be mutually exclusive with the application for such authorized or previously proposed station.

(i) All applicants for frequencies in 2596-2644 MHz band must, prior to receiving a construction permit and at such time as the Commission requests, file with the Commission an analysis demonstrating that the facility to be constructed will not cause harmful interference to existing cochannel or adjacent channel Instructional Television Fixed Service receiver locations within 50 miles of the transmitter, or, in the alternative, submit a statement from the ITFS licensee that the interference is acceptable.

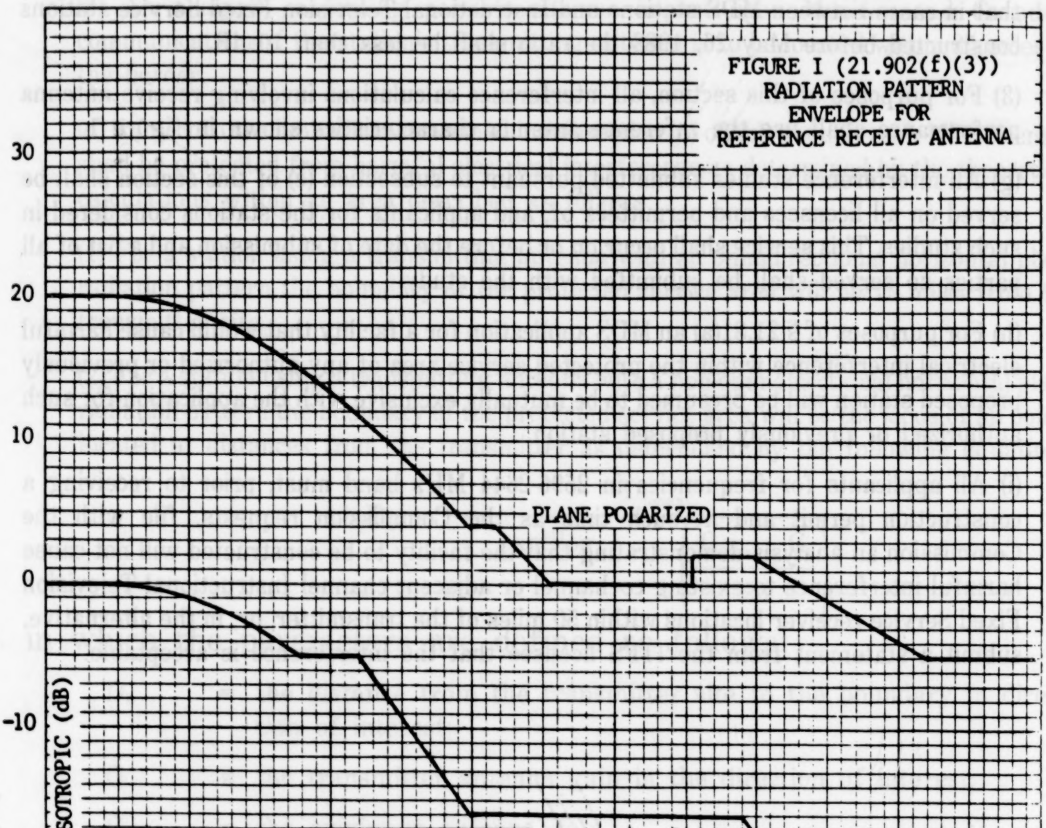

FIGURE I (21.902(f)(3))
RADIATION PATTERN
ENVELOPE FOR
REFERENCE RECEIVE ANTENNA

Instructional TV Fixed Service
Multipoint Distribution Service
Private Operational Fixed Microwave Radio Service
Reconsideration, Petition for, Denial of

Reconsideration of Report and Order, 94 FCC 2d 1203 (1983), denied. Petitioner's concerns are accomplished in amended rules. Commission clarifies *Report and Order* reallocating spectrum for multichannel Multipoint Distribution Service.

—Amendment of Parts 2, 21, 74 and 94
Gen. Docket No. 80-112

FCC 84-177

BEFORE THE
FEDERAL COMMUNICATIONS COMMISSION
WASHINGTON, D.C. 20554

In the Matter of

Amendment of Parts 2, 21, 74, and 94 of the Commission's Rules and Regulations in Regard to Frequency Allocation to the Instructional Television Fixed Service, the Multipoint Distribution Service, and the Private Operational Fixed Microwave Service.

Inquiry into the development of regulatory policy with regard to future service offerings and expected growth in the Multipoint Distribution Service and Private Operational Fixed Microwave Service, and into the development of provisions of the Commission's Rules and Regulations in regard to the compatibility of the operation of satellite services with other services authorized to operate in the 2500-2690 MHz band.

Amendment of Parts 1 and 21 of the Commission's Rules and Regulations in regard to using random selection procedures to select permittees in the Multipoint Distribution Service.

General Docket
No. 80-112

MEMORANDUM OPINION & ORDER ON RECONSIDERATION

Adopted: April 26, 1984; Released: June 5, 1984

BY THE COMMISSION: COMMISSIONER RIVERA CONCURRING IN PART AND DISSENTING IN PART AND ISSUING A STATEMENT.

1. On July 15, 1983, we released the *Report & Order* in General Docket No. 80-112, *Multipoint Distribution Service*, 94 F.C.C.2d 1203 (1983) (hereinafter *Report & Order*). In that order we reallocated eight channels from the Instructional Television Fixed Service (ITFS) to the Multipoint Distribution Service (MDS), and permitted ITFS licensees to lease excess capacity on their facilities. Applications for the reallocated channels were to be filed on September 9, 1983.[1]

2. Petitions for reconsideration of that *Report & Order* have been filed by The Public Broadcasting Service (PBS), by Western Communications Research Institute, Inc. (Western), and by Harry J. Pappas.[2] The petitions of PBS and Western are opposed by: Satellite Signals of New England, Inc.; Joseph S. Gans; Fay Grim, dba Mississippi Valley Microwave; Southern Satellite Systems, Inc.; Jewell B. Callahan; Northwest Communications, Inc.; Calcasieu TV & Radio, Inc.; Central Nebraska Broadcasting Co., Inc.; Ronette Communications Co.; National Television Company; Dorothy Davis; Delta-Band Services, Ltd.; and People's Broadcasting Co. The petition of Pappas is opposed by the law firm of Pepper & Corazzini. Both PBS and Microband Corporation of America (Microband) filed replies to the oppositions.[3] As the three petitioners raise unrelated

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[1] When the Report & Order was published in the Federal Register the filing date was incorrectly given as September 8, 1983. This error was subsequently corrected by publication one week later on August 1, 1983. 48 Fed. Reg. 34,746 (1983). To prevent any potential prejudice, we accepted applications received between September 2 and September 9, 1983. Multichannel MDS Applications, Public Notice, Mimeo No. 5754 (Informal Press Release, August 4, 1983).

[2] The Pappas petition seeks an extension of the filing date for applications from 45 to 90 days after the publication of the Report and Order. This request will be denied because: 1) although the order was published in the Federal Register on July 25, public notice of the decision was made by the Commission on May 26, which enabled interested persons to begin preparing applications; 2) nearly 1,000 applicants filed nearly 17,000 applications in a timely manner (these applicants included Stella A. Pappas, petitioners' wife, who timely filed applications for approximately 105 Metropolitan Statistical Areas); and 3) this request should have been raised in a motion for extension of time pursuant to Rule 1.46, 47 C.F.R. § 1.46.

[3] The pleading of Microband, while captioned "Reply", is in substance an opposition to the original PBS Petition for Reconsideration. We will consider it in the nature of an informal comment. *Cf.* Westinghouse Broadcasting Co., 84 F.C.C.2d 938, 939 n.2 (1981)(Comments not timely filed are considered informal comments); Staunton Video Corp., 47 F.C.C.2d 85 (1974)(pleading not contemplated by our rules is treated as informal comment).

issues, we will discuss each petition in turn. We also take this opportunity to clarify and interpret portions of our *Report & Order*.

Petition of PBS

3. In its petition for reconsideration PBS presents a number of alternative positions. It asks us to reconsider our decision to reallocate any channels to MDS. Assuming that channels are to be reallocated, it recommends that we reallocate the G group of channels rather than the E and F groups. PBS further suggests that we adopt additional provisions to protect future ITFS interests. It recommends that ITFS applicants be permitted to apply for the reallocated channels, and that ITFS licensees be allowed to assign licenses in the E and F channels. Finally, PBS recommends that all first-round MDS applicants for the reallocated channels be required to file an interference analysis.

Reallocation Theory

4. PBS first contends that the findings in the *Report & Order* do not support the reallocation of the E and F channels. It states that adequate spectrum must be reserved for future ITFS needs and that our findings did not show a demand for multichannel MDS but merely a demand for premium entertainment services, which could be supplied by any number of technologies.

5. We reject PBS' argument. In our *Report & Order*, we reviewed existing and projected ITFS spectrum needs. We found that while there will be some future growth, that growth would not be sufficient to result in full utilization of all 28 channels then allocated to ITFS. *Report & Order*, 94 F.C.C.2d at 1224-25.

6. We also reviewed potential MDS expansion. We found that there would be rapid acceleration in MDS growth if additional channels were made available, and if the restrictions on multiple channel use were removed. *Id.* at 1220-24. We further reviewed alternative technologies, such as subscription television, direct broadcast satellites, and low-power television; we concluded that even taking the future development of these into account, multichannel MDS would expand consumer options and thus be in the public interest. *Id.* at 1226.

7. We have held on numerous occasions that the public interest is best served by diverse media sources.[4] We conclude that the findings contained in our *Report & Order* support our determination that reallocation promotes diverse media sources and thus is in the public interest. To the extent that PBS's position merely reiterates positions taken and considered in our *Report & Order*, it must be denied.[5]

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[4] *See* Use of Private Microwave Services, 86 F.C.C.2d 299, 303 (1981).

[5] Cable Television Over-Regulation, 57 F.C.C.2d 811 (1976).

Reallocated Channels

8. Assuming that reallocation is justified in theory, PBS contends that we should nevertheless reconsider our selection of the channel groups now allocated to MDS. PBS proposes reallocation of the four channels in the G group rather than the eight channels in the E and F groups.

9. In our *Report & Order*, we found that authorizing multichannel MDS systems would most adequately meet projected consumer demand. 94 F.C.C.2d at 1243. After weighing both the future needs of ITFS and the public interest benefits from increased competition among MDS carriers, we concluded that the optimum reallocation scheme would consist of two groups of four channels each. *Id.* at 1244-45. Given that a total of eight channels were to be reallocated, we selected the E-F pair after considering: (a) the proposed NASA feeder link operation (which ruled out the A-B pair and the G group); and (b) the need for the widest contiguous band available for ITFS (which eliminated consideration of the C-D group). *Id.* at 1246.

10. PBS's proposal that only the G channel group be reallocated must be denied. This proposal is merely a reiteration of the position which we carefully considered in the rulemaking proceeding. In particular, our decision to allocate two groups of four channels forecloses allocation of only the G group, as we decided to reallocate two interleaved groups.[6] This restricted our choice to either the A-B, C-D, or E-F groups. We chose the E-F group to maximize the contiguous bandwidth available for ITFS. 94 F.C.C.2d at 1246.

Protection of Future ITFS Interests

11. Assuming that the E and F channels are reallocated, PBS contends that we should reconsider our decision to bar future ITFS applications for those channels. PBS also recommends that we reconsider our decision forbidding ITFS licensees on the E and F channels from assigning their licenses. Finally, PBS recommends that we rescind our decision to waive for the first group of applicants the interference analysis required by Rule 21.902(c)(1), 47 C.F.R. § 21.902(c)(1). We deal with each argument in turn.

12. In the *Report & Order*, we amended Rule 74.902(c), 47 C.F.R. § 74.902(c) to reflect the reallocation of the E and F channels; in so doing we specified that no new ITFS applications for these reallocated channels would be accepted after May 26, 1983. Grandfathered ITFS stations

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[6] The G group is interleaved with the H group, the latter being allocated to Private Operational Fixed Microwave Service (OFS). Any scheme which reallocates the G group along with any other ITFS group would require reallocating non-interleaved groups. This would increase the number of non-MDS adjacent channels from two to eight or ten, and would not represent an optimal reallocation scheme.

operating on the E and F channels will only be protected to the extent of their service that is either in the operation or the application stage as of May 26, 1983. These licensees or applicants will not generally be permitted to change transmitter location or antenna height, or to change transmission power.[7] In addition, any new receive stations added after May 26, 1983 will not be protected against interference from MDS transmissions.[8] In this fashion, all facets of grandfathered ITFS operations were frozen as of May 26, 1983. No new ITFS applications will be accepted for these channels, including applications to add channels from the E or F groups by ITFS licensees or permittees with grandfathered rights to one or more of these channels. We noted that this prohibition is necessary to reserve the reallocated channels for MDS use, as well as to avoid having "mutually exclusive, fundamentally different applicants for the same channel." *Id.* at 1241.

13. PBS argues that this prohibition is unjustified, and cites two examples to support its position: (a) if any reallocated channels remain unclaimed by MDS applicants after the initial deadline, this will mean that MDS will probably not develop at all in that area, and ITFS should be permitted to use the vacant channels; (b) in some communities, existing grandfathered ITFS operations may preclude a viable MDS system but not a new limited ITFS system (such as a studio-to-transmitter or other point-to-point ITFS link). It should be noted that these situations would not justify reconsideration unless one other condition were also present, namely insufficient spectrum remaining in the unreallocated ITFS bands. The number of instances in which these conditions will occur is speculative at best. If relatively rare, they can be handled individually by such methods as reuse of existing ITFS channels. *Cf. Report & Order*, 94 F.C.C.2d at 1241, n.28. Should we find in the future that these occurrences are relatively more common, we can resolve any problems by further rulemaking to adjust spectrum allocation. *Id.* at 1226.

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[7] Of course, one of our goals in the *Report & Order* is the efficient utilization of spectrum. To this end, we will consider any waiver requests, preferably submitted on a joint basis by existing ITFS licensees and MDS permittees in the E and F groups, seeking to show that a modification of a grandfathered ITFS licensee in the E or F group would result in more efficient spectrum utilization.

[8] While these provisions are consistent with the concept of grandfathering outlined in the previous paragraph, we note that there may be instances where the natural evolution of an ITFS may reasonably require the addition of receive stations without changing the nature or the scope of the ITFS operation. For example, a university may open a branch campus at a remote location, or a newly opened business may want to take advantage of training programs available to its established competitors. Situations such as these may justify adding a receive station to an existing ITFS. In such instances where the natural extension of the service would justify adding receive stations to a grandfathered ITFS operating in the E or F channels, the grandfathered licensee can petition the Commission for a waiver of § 74.902(c).

14. We also reaffirm our decision prohibiting all but *pro forma* assignment of grandfathered ITFS licenses. This would include all ITFS licenses for E and F channels which either have been granted or were in the application stage as of May 26, 1983.[9] Such a prohibition is consistent with the purpose of a grandfather provision, which is to protect specific interests of the public and of operating stations. For the public, grandfathering provisions protect against disruptions in existing services.[10] For the operating station, grandfathering guards against economic dislocation and protects the reliance interest of the station in the spectrum as allocated.[11] Neither such interest would be furthered by PBS's recommendation. Future assignees are not yet in operation, and so no existing service would be disrupted by the prohibition. In addition, a potential assignee would have no reliance interest to be protected; such an assignee would be preparing to operate in a market with full knowledge that MDS licensees could also be operating in the same channel group in that market. Accordingly, we deny PBS's request to reconsider our prohibition on the assignment of grandfathered ITFS licenses and applications.

15. Finally, we reaffirm our decision to waive the interference analysis for the first group of multichannel MDS applicants. *See Report & Order*, 94 F.C.C.2d at 1265. Successful applicants will have to file an interference analysis after they have been granted a construction permit. We found that this procedure would conserve resources for unsuccessful applicants, for ITFS licensees, and for the Commission. *Id.* at 1238. PBS contends that by deferring all interference analysis to the post-grant stage, we have created a "land rush" climate which places an unjustified burden on ITFS operators to review large numbers of MDS applications. In fact, however, our procedure reduces the burden on ITFS operators; regardless of however many applications are filed, the ITFS licensees will only have to review the successful ones. Applicants for the reallocated spectrum will have the burden, as part of the application process, to locate any existing ITFS operators and contact them to resolve any frequency conflicts. For the foregoing reasons, we feel that the present application

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[9] In Public Broadcasting Service, FCC 83-611 (released January 9, 1984), we granted over 80 ITFS construction permits to PBS, including several permits in the E and F bands. PBS had represented in its applications that it would be willing, at a later date, to assign its ITFS permits or licenses to any local member broadcast station licensee that desired to operate an ITFS station. We granted those applications with that understanding. We believe, under the circumstances, that PBS should be exempt from the general prohibition on assignment of permits or licenses for the E and F channels granted in Public Broadcasting Service, *id.*

[10] *See, e.g.* Service Electric Cable TV, Inc., 32 F.C.C.2d 334, 337 (1971); *accord* Committee for Open Media v. FCC, 533 F.2d 1, 2-4 (D.C. Cir. 1976).

[11] *Cf.* New York State Commission on Cable Television v. FCC, 571 F.2d 95 (2d Cir.), *cert. denied*, 439 U.S. 820 (1978).

procedure is actually more favorable toward ITFS interests than that suggested by PBS.

16. We feel that the procedure established in our *Report & Order* provides adequate protection for ITFS licensees. Successful Multichannel MDS applicants are required to make "exceptional efforts" to avoid blocking cochannel use in nearby cities and adjacent channel use in the same city. 47 C.F.R. 21.§902(a). These permittees must attempt to obtain the written consent of all ITFS licensees and applicants within a 50 mile radius.[12] With regard to procuring this consent, we have stated that we expect both MDS applicants and ITFS licensees to cooperate in assuring that harmful interference problems will be minimized.

17. For these reasons, we feel that the reallocation scheme and the application scheme, as established in our *Report & Order*, represent the appropriate method for reallocating spectrum for multichannel MDS while at the same time safeguarding the interests of existing and future ITFS needs. For this reason, we deny the petition of PBS to reconsider that *Report & Order*.

Petition of Western

18. In its petition for reconsideration, Western seeks to provide additional protection for ITFS channels D4 and G1. These are the two channels that "bookend" the spectrum we reallocated to MDS. Western claims that potential interference from new MDS use in channels E1 and F4 may have the practical effect of "remov[ing] 10 channels rather than eight from ITFS use."[13] Western recommends that ITFS applications for channels D4 and G1 that are filed before the awarding of MDS permits in a local market be given the status of existing users under Rules 21.901(a) and 21.902(d). After MDS permits are awarded, Western recommends that MDS users be required to share tower sites with ITFS facilities, and to shuffle polarizations to accommodate new adjacent ITFS applicants up until the time the MDS stations actually begin transmitting. Finally, Western recommends that ITFS entities be allowed to use higher powered transmitters, where necessary, to equalize effective radiated power (ERP).

19. In our *Report & Order*, we recognized the importance of minimizing interference with ITFS services. An application for the reallocated channels must contain a showing of "how interference with the operation of *adjacent channels* will be avoided and what steps the applicant has

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[12] In extraordinary cases where the MDS permittee is not able to obtain such written consent after reasonable effort, it may substitute evidence on the issue of harmful interference. *Report & Order*, 94 F.C.C.2d at 1236, n.26. We reiterate, however, that we expect existing and potential ITFS operators to cooperate with successful MDS applicants in resolving interference issues.

[13] Western Petition at 3.

taken to comply with subsection 21.902(a) of this section." Rule 21.902(d)(7), 47 C.F.R. § 21.902(d)(7) (emphasis added). Subsection 21.902(a) provides that any licensee must "make exceptional efforts to avoid harmful interference to other users *and to avoid blocking potential adjacent channel use* in the same city and cochannel use in nearby cities." 47 C.F.R. § 21.902(a) (emphasis added). These "exceptional efforts" would include, where necessary, such measures as co-location of transmission antenna, equalization of ERP, and cross-polarization.[14] We feel that these provisions adequately protect all ITFS users and future applicants, including those in channels D4 and G1, and we decline to adopt any further provisions.

Miscellaneous

20. We take this opportunity to clarify several matters regarding ITFS use of excess capacity. We note that under Rule 74.931(e) as revised by the *Report & Order*, an ITFS operator may lease excess capacity to others for non-ITFS service, or the operator may itself use the excess capacity for non-ITFS transmission. The excess capacity need not be leased to another in order to be used for non-ITFS purposes. However, regardless of whether it is the ITFS operator or a lessee who is using the excess capacity, if that capacity is made available on a common carrier basis it will be subject to common carrier regulation. We feel that this clarification is consistent both with Rule 74.931(e) as well as with our intentions as expressed in paragraphs 118-129 of the *Report & Order*.

21. It has also come to our attention that the provisions of the *Report & Order* concerning the leasing of excess ITFS channel capacity may be open to some misinterpretation. Although we declined originally to adopt specific standards on the maximum amount of time that could be leased, we did emphasize that "we do expect ITFS licensees to utilize *each* of their ITFS main channels *substantially* for legitimate ITFS use." 94 F.C.C.2d at 1251. (emphasis added). This expectation was codified in 74.931(e).[15] Our purpose in adding this admonition is obvious. The *Report and Order* struck what we believed to be the appropriate balance between the legitimate present and future needs for spectrum by ITFS interests while providing some additional spectrum for non-ITFS purposes. Abandoning-all use restrictions at the onset of the new program could be a de

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[14] *See* Multipoint Distribution Service, Notice of Inquiry and Proposed Rulemaking, 45 Fed Reg. 29,350, 29,354 (1980).

[15] "The excess capacity of each channel licensed in this service may be used for the transmission of material to be used by others in addition to the material specified in (a), (b), (c) and (d) of this section. Each station licensed in this service must use a significant portion of the main channel capacity of each authorized channel for the transmission of material specified in subsections (a), (b) and (d) of this section . . . . " 47 C.F.R. § 74.931(e).

facto reallocation of more than eight channels, and could encourage entities not primarily interested in providing ITFS programming to apply for ITFS channels, fundamentally changing the nature of the service without an opportunity for the Commission to balance the various interests. Moreover, our plan contemplates new MDS licensees of the E and F channels accommodating existing ITFS E and F group licensees. The opportunity to relocate the grandfathered E and F group licensees declines as the remaining ITFS channels are used for non-ITFS purposes.

22. At this time, at least until the new plan is given an opportunity to work, we believe the stated purposes of ITFS must continue to be the paramount concern of any ITFS licensee:

> Instructional television fixed stations are intended *primarily* to provide a means for the transmission of instructional and cultural material in visual form with an associated aural channel to specified receiving locations for the primary purpose of providing a formal educational and cultural development to students enrolled in accredited public and private schools, colleges, and universities.

47 C.F.R. § 74.931(a) (emphasis added).[16] The determination of whether the main channel of an ITFS station is being used substantially for ITFS purposes is difficult to make. If the main channel is used for instructional broadcasting only, we conclude that the channel is being used "substantially" for ITFS purposes regardless of the number of hours it operates each day, each week, or each year. We reach this conclusion because our rules do not require ITFS licensees to use their facilities on a regularly scheduled basis. *See* 47 C.F.R. § 74.963(a).

23. When an ITFS main channel is used both for ITFS purposes and non-ITFS purposes, the determination could be made simply by interpreting the phrase "significant portion of the main channel capacity" to mean a specific percentage of the total operating time. For example, we could interpret the term to mean that at least 25% of the total available time be devoted to ITFS programming. This approach, although simple, does present certain problems. For example, if the ITFS licensee were a school that was in session from 7:00 a.m. to 3:00 p.m. five days per week, and it used its facility constantly during those hours, it would only be using the channel 40 hours per week or 23% of the total hours available each week. A more relevant consideration may be how many hours per day (or per week or per year) ITFS stations were operated prior to our decision in the *Report & Order* to allow leasing. We have never collected such data; however, many of those who commented in this proceeding volunteered such data.[17] While the numbers vary somewhat from system to system,

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[16] *See also* 47 C.F.R. § 74.931(b) (in-service, professional, and technical training and development are also legitimate ITFS uses).

[17] The Indiana Higher Education Telecommunications System (IHETS) supplied the following description of its operating hours:

the data presented does show that many ITFS systems operating prior to our *Report & Order* were using at least 12 hours each day for ITFS transmissions.

24. We recognize, however, that our purpose in requiring a "significant portion" of each ITFS channel to be used for the purpose for which it was licensed was to set a *minimum*, and not to describe the typical ITFS operation. Primary and secondary schools are generally in session during the day for approximately six hours of instruction each day, or an average of 30 hours per week. We conclude that any such ITFS licensee transmitting ITFS programming for less than half of that time (i.e., 15 hours per week) would not be using a "significant portion" of that channel's capacity for ITFS purposes. With regard to other educational uses, as well as in-service, professional, and technical training, most such ITFS programming which was not transmitted during the daytime would be transmitted during the evening hours, generally from 6:00 or 7:00 p.m. to 10:00 p.m. Any ITFS licensee serving those needs would also be using each channel for at least three hours per day, or an average of 15 hours per week. Therefore, we conclude that an ITFS licensee should use each channel for at least 15 hours per week from 8:00 a.m. to 10:00 p.m., Monday through Friday during the school year, before it can be considered to be using "a significant portion of the main channel capacity" for ITFS purposes.

25. This approach may also have the beneficial effect of increasing ITFS programming for some licensees. If a licensee were only transmit-

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> A typical program day for the IHETS network begins at 7:00 a.m. and continues until 10:00 p.m. each weekday. ... Scheduling on Saturday and Sunday is currently less extensive. Televised continuing education programming is intended for adult audiences and is presented at times and locations most convenient for the adult student, hence the wide range of program transmission times.

IHETS Comments in Docket No. 80-112/80-113, at 21. Similarly, the Director of the University of California Lawrence Livermore National Laboratory (LLNL), a user of the Stanford University and University of California ITFS Systems, supplied the following information about its use of its ITFS classroom:

> The classroom system at LLNL operates daily from 7:00 a.m. to 10:00 p.m. to handle 120 to 150 televised courses each year and serves from 250 to 400 employees as either degree-seeking or audit students.

LLNL Comments in Docket No. 80-112/80-113, at 2. Finally, Dr. Gerald Rosander, County Superintendent of Schools for San Diego County, supplied extensive information about the hours of use of the ITFS channels in San Diego. Several of the channels are used 24 hours per day, seven days per week; others are used from 6:00 a.m. to 12:00 p.m. five days per week and from 8:00 a.m. to 2:00 p.m. on Saturday. The least-used channel is operated from 6:00 a.m. to 9:00 p.m. five days per week, and from 8:00 a.m. to 2:00 p.m. on Saturday. *See* Comments of Dr. Gerald A. Rosander in Docket No. 80-112/80-113, at Appendix D.

ting, for example, 12 hours of ITFS programming per week, that licensee might want to add an additional three-hour of programming so that it could lease any excess capacity. A potential lessee may be willing to provide some of the cost of producing the additional programming, especially if that would entitle the licensee to lease excess capacity.

26. The Commission intends to review and consider the "significant portion" question and other matters relevant to the use of ITFS excess channel capacity for non-ITFS purposes either in the context of the outstanding rulemaking proceeding in MM Docket 83-523[18] or in a further rulemaking proceeding. However, we presently believe that a licensee who transmits non-ITFS programming, and who uses less than 15 hours of weekly transmission time between 8:00 a.m. and 10:00 p.m. for ITFS purposes, raises questions as to its primary intention as a licensee. Therefore, until such time as we revisit this matter, we are interpreting the phrase "significant portion of the main channel capacity" in Rule 74.931(e) to mean that no ITFS licensee may lease or use for non-ITFS purposes capacity on any channel unless that channel is being used for ITFS for a minimum of 15 hours per week during the period between 8:00 a.m. and 10:00 p.m. each day, Monday through Friday, excluding holidays and vacation periods. Applicants filing Form 330-P, Application for Authority to Construct or Make Changes in an Instructional TV Fixed Station and for Response Station(s) and Low Power Relay Station(s), should state, as part of their application, the total number of hours per week, and the specific days and hours per day, that each channel will be used for ITFS programming between 8:00 a.m. and 10:00 p.m.

Conclusion

27. For the foregoing reasons, the petitions of PBS, Western, and Pappas to reconsider our *Report & Order* are hereby DENIED.

28. It is ORDERED that Title 47 of the Code of Federal Regulations is amended as described in Appendix A to this Order. This amendment shall become effective 30 days after publication in the Federal Register.

FEDERAL COMMUNICATIONS COMMISSION
WILLIAM J. TRICARICO, *Secretary*

APPENDIX A

Section 931(e) of Part 74 of Chapter I, Title 47 of the Code of Federal Regulations is amended to read as follows:

§ 74.931 Purpose and permissable service.

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[18] 48 Fed. Reg. 29,553 (1983). This proceeding proposed amending Part 74 of the Rules regarding ITFS in both technical and non-technical areas.

(e) The excess capacity of each channel licensed in this service may be used for the transmission of material to be used by others in addition to material specified in paragraphs (a), (b), (c) and (d) of this section. Each station licensed in this service must use a significant portion of the main channel capacity of each authorized channel for the transmission of material specified in paragraphs (a), (b) and (d) of this section. For purposes of this paragraph, the phrase "significant portion of the main channel capacity" shall be interpreted to require that every licensee who proposes to lease or otherwise use a channel for non-ITFS purposes must use that channel for the purposes set forth in paragraphs (a), (b) and (d) of this section for at least 15 hours each week during the period between 8:00 a.m. and 10:00 p.m., Monday through Friday, excluding holidays and vacation days. All of the capacity available on any subsidiary channel of any authorized channel may be used for the transmission of material to be used by others. When an ITFS licensee makes excess capacity available on a common carrier basis, it will be subject to common carrier regulation. Licensees operating as a common carrier are required to apply for the appropriate authorization and to comply with all policies and rules applicable to the service. Responsibility for making the initial determination of whether a particular activity is common carriage rests with the ITFS licensee. Initial determinations by licensees are subject to Commission examination and may be reviewed at the Commission's discretion. Leasing activity may not cause unacceptable interference to cochannel and adjacent channel operations.

* * * *

STATEMENT OF COMMISSIONER HENRY M. RIVERA

CONCURRING IN PART, DISSENTING IN PART

RE: Reconsideration of *Report and Order* in Docket 80-112

I am pleased that the Commission has adopted a standard to govern leasing of excess capacity by ITFS licensees. While I am concerned that the standard enunciated may not effectively dissuade a *de facto* spectrum reallocation, any standard is a step in the right direction. I hope the Commission stands ready to revisit the issue if the new 15-hour rule proves inadequate to safeguard this spectrum for present and future educational uses.

Turning to another matter, I continue to believe that the regulatory scheme governing MDS is inconsistent with longstanding administrative goals and the Communications Act itself.[1] Therefore, to the extent this decision continues the practice of addressing the diversity-furthering and regulatory classification implications of newly authorized services with a wink and a nod, I must once again dissent.

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[1] *See Multipoint Distribution Service*, 94 FCC 2d 1203 (1983) (Statement of Commissioner Henry M. Rivera, Concurring in Part, Dissenting in Part); Remarks of Commissioner Henry M. Rivera before ALI-ABA Course of Study on Communications Law: The New Regulatory and Technological Framework, Washington, D.C., March 29, 1984.

Common Carrier
Common Carrier, Acquisition of Facilities
Divestiture
Grant, Conditions on
Reconsideration

Commission reconsidered and amended some of the conditions placed on the grant of the application for transfers of facilities under Sections 214 and 310(d) of the Communications Act necessary to implement the divestiture of the Bell Operating Companies from the American Telephone and Telegraph Company.
—*AT&T Co.*

FCC 84-288

BEFORE THE
FEDERAL COMMUNICATIONS COMMISSION
WASHINGTON, D.C. 20554

In the Matter of	
The Consolidated Application of American Telephone and Telegraph Company for Specified Bell System Companies for Authorization Under Sections 214 and 310(d) of the Communications Act of 1934 for Transfers of Interstate Lines, Assignments of Radio Licenses, Transfers of Control of Corporations Holding Radio Licenses and Other Transactions as Described in the Application.	File No. W-P-C-4955

MEMORANDUM OPINION AND ORDER

Adopted June 27, 1984; Released July 30, 1984

BY THE COMMISSION: COMMISSIONER DAWSON CONCURRING IN PART & DISSENTING IN PART; COMMISSIONER RIVERA CONCURRING IN PART & ISSUING STATEMENT.

1. The Commission has before it eight petitions for reconsideration and four petitions for clarification of our Memorandum Opinion, Order and Authorization, FCC 83-566, released Dec. 23, 1983, (Order) in the

above-captioned proceeding.[1] In the *Order*, we granted authorizations for the transfer of various facilities necessary to implement the Modification of Final Judgment (MFJ) in *United States v. American Telephone and Telegraph Co.*,[2] which required the divestiture of the Bell Operating Companies. We conditioned the authorizations upon the submission of various reports by AT&T and holding companies owning the stock of the divested Bell Operating Companies, and upon certain costs involved in implementing the MFJ being borne by shareholders of the companies rather than ratepayers. The petitions challenge each of the conditions, and some petitioners request additional conditions.

2. After considering the petitions, we find that some modification and clarification of the conditions is necessary. Specifically, we modify the conditions related to the accounting treatment to be applied to the costs of divestiture (conditions 4 - 7) to require only the separate reporting of those costs. We shall determine the appropriate ratemaking treatment of those costs in ratemaking proceedings. With respect to the service quality and facility-related reporting conditions, we have sought herein to make clearer our intention with respect to the reports to be filed.

I. Background

3. On March 1, 1983, AT&T and certain specified Bell Operating Companies filed a consolidated application for authorization under Sections 214 and 310(d) of the Communications Act, 47 U.S.C. §§ 214, 310(d), for various transfers of facilities necessary to implement the MFJ. The

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[1] Persons filing petitions for reconsideration include: American Telephone and Telegraph Company., (AT&T); Northwestern Bell Telephone Co., The Mountain States Telephone and Telegraph Co., and Pacific Northwest Bell Telephone Co. (Northwestern); New York Telephone Co. and New England Telephone and Telegraph Co. (New York); the Bell Atlantic telephone companies (Bell Atlantic); American Information Technologies Corp. and Ameritech Telephone Companies (Ameritech); BellSouth Corp. and its operating telephone company subsidiaries (BellSouth); Southwestern Bell Telephone Co., (Southwestern); Pacific Bell and Nevada Bell (Pacific). North American Telecommunications Association (NATA), GTE Sprint Communications Corp., (Sprint), GTE Service Corp. and the GTE domestic operating companies (GTE), and MCI Telecommunications Corp. (MCI) filed petitions for clarification. We also have before us a Special Appearance to Deny Jurisdiction filed by U.S. West, Inc. All the petitions will be cited hereafter simply by the name of the petitioner and the appropriate page(s) of the petition. AT&T, all of the divested operating companies, MCI and GTE filed oppositions to the various petitions and New York, BellSouth, NATA, MCI, Pacific, GTE, Northwestern, Bell Atlantic and AT&T filed replies. The State of California filed a late "reply" to the petitions, to which Pacific Bell has filed a motion to strike. *See* note 36 *infra*. Finally, we also have before us petitions for stay of the various conditions filed by Bell Atlantic, Pacific Telesis Group (together with Pacific Bell and Nevada Bell) and Southwestern. New York filed a Motion to Defer Identification and Reclassification of Divestiture-Related Administrative and Network Reconfiguration Costs.

[2] 552 F. Supp. 131 (D.D.C. 1982), *aff'd sub nom.* Maryland v. United States, 103 S. Ct. 1240 (1983).

MFJ required AT&T to separate facilities and personnel relating to exchange telecommunications and exchange access functions from other functions. Thirteen parties filed comments or petitions. In addition, AT&T periodically submitted information updating the listing of facilities for which transfer authorization was requested and responding to various questions raised by the Common Carrier Bureau. Pleadings and comments were received in response to the additional information.

4. On December 1, 1983, the Commission conditionally granted the consolidated application. In our Order, we concluded that it was likely that divestiture, as implemented by the transfers of facilities set forth in the application, would be in the public interest because it is likely to increase competition in the telecommunications services and equipment markets and increased competition should result in generally lower prices in the long run and an increase in the types of services offered. At the same time, we recognized that much of our analysis of the effects of divestiture was based upon assumptions as to future developments that might not occur. We concluded, therefore, that it was important for the Commission to monitor carefully the implementation of the divestiture so that we would be in a position to identify problems and act quickly should adverse effects arise from divestiture. Thus, we conditioned grant of the application upon AT&T and the regional holding companies, which hold the stock of the divested operating companies, filing certain information with this Commission relating to the costs of divestiture, the progress made in implementing various requirements of the MFJ, service quality, and the effects of divestiture on the national security and emergency preparedness.

5. In the Order, we also considered the costs of implementing divestiture and found that certain administrative costs had little relationship to the provision of common carrier service and appeared to provide no direct benefit to ratepayers. We found, therefore, that these costs should be borne by AT&T's shareholders, rather than ratepayers, and conditioned the grant upon the companies including any divestiture-related administrative costs in Account 323, Miscellaneous income charges, a "below-the-line" account.[3] With respect to other costs of divestiture, we concluded that we had insufficient information to determine whether those costs would provide a direct benefit to the ratepayers and should, therefore, be borne by them. Because we had particular concerns about the network reconfiguration costs we also conditioned the grant upon the carriers including those costs in Account 103, Miscellaneous physical property, or Account 323, but stated that the carriers would be allowed to

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[3] This condition was to have been satisfied within 30 days after divestiture. *See* note 5 *Infra*. "Below the line" expenses normally are not permitted to be included in the calculation of the revenue requirement.

seek to justify the inclusion of the costs in their interstate rates.[4]

6. After release of the Order, the Commission received letters from AT&T and each of the divested companies generally accepting the Commission's authorization as conditioned but stating that the companies were not waiving their rights to petition for reconsideration of any part of the Order. On January 1, 1984, divestiture occurred as planned.

II. The Petitions for Reconsideration

7. No petitioner questions the grant of the application. Rather, the petitions for reconsideration and clarification challenge the various conditions imposed upon the companies.[5] AT&T and all of the operating companies seek reconsideration and deletion of the conditions that the companies identify any divestiture-related administrative and network reconfiguration costs and include them in Account 323, or Account 103.[6] They argue that the conditions are inconsistent with the primary finding of the Order that the divestiture is in the public interest.[7] They reason that if the divestiture is in the public interest, all expenditures that are reasonable and necessary to implement the divestiture ought to be allowed for ratemaking purposes. Since there have been no allegations or findings that the costs involved were unreasonable, imprudent or unnecessary, there is no justification for the accounting treatment required by the Order.

8. Alternatively, the companies argue that the Commission does not have the authority to take ratemaking actions in a Section 214 or 310(d) proceeding. They argue that any condition imposed under Section 214 or 310 must have some rational relationship to the facilities involved and that the conditioning power cannot be used to circumvent the statutory scheme of ratemaking embodied in Sections 201-05 of the Communications Act, 47 U.S.C. §§ 201-05. The companies point out that Section 204 of the Act provides for a "full hearing" as to the lawfulness of new charges and that under Section 205 the Commission may impose just and reasonable

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[4] We also conditioned the application upon the companies removing any divestiture-related administrative costs already included in any pending tariff filing and notifying the state commissions that this Commission had determined those costs could not be included in interstate rates. With respect to any costs that might have been included in interstate rates prior to the date of the Order, we stated that amount would be used to reduce the revenue requirement in the next proposal to revise current interstate rates.

[5] In addition to its petition for reconsideration, AT&T filed a motion for extension of time to comply with the cost-related conditions. By Orders of January 3, 1984, and May 29, 1984 the Chief, Common Carrier Bureau, extended the time for compliance with the conditions.

[6] BellSouth also requests reconsideration of the condition (condition number 8) requiring the filing of information on the costs actually incurred in the implementation of the MFJ. However, no specific reasoning is given for this request.

[7] *See, e.g.*, AT&T at 3-6; Southwestern at 7-9; Bell Atlantic at 6; BellSouth at 13-14; Pacific at 6-8; New York at 7-8.

charges only "after full opportunity for hearing." Thus, according to the petitioners, the Commission may not take the ratemaking action it took in the Order without notice and a full hearing, which petitioners claim they have not had.[8] Because of this alleged flaw, some petitioners claim that the conditions constitute a denial of due process and a violation of Section 3 the Administrative Procedure Act, 5 U.S.C. § 553.[9]

9. The conditions are challenged as being legally deficient for four additional reasons. Several petitioners argue that the condition that any amount of administrative costs already included in interstate rates will be used to reduce the revenue requirement in the next proposal to revise interstate rates amounts to unlawful retroactive ratemaking.[10] Second, the standard enunciated in the Order for determining whether administrative and network reconfiguration costs would be allowed for ratemaking purposes is challenged as being an unlawful departure from Commission precedent, which allows recovery of all "reasonable and prudent expenses" and all "used and useful" investment and which has allowed recovery of similar costs in similar cases.[11] Third, several of the petitioners argue that the condition that they inform the state regulatory commissions that this Commission has determined that the administrative costs should not be recovered through interstate rates is an unlawful intrusion into intrastate ratemaking.[12] Fourth, several companies argue that the administrative and network reconfiguration costs cannot be put in Account 23 without violating the accounting rules this Commission has

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[8] *See, e.g.*, Ameritech at 7-8; Southwestern at 9-13; Pacific at 12-15; New York at 12; AT&T at 18-23; Northwestern at 4-6; BellSouth at 7-10; Bell Atlantic at 12. Along the same line, Bell Atlantic argues that the statutorily required affirmative finding required to be made before the Commission can condition a grant has not and cannot be made on the record. *Id.* at 10.

[9] *See, e.g.*, BellSouth at 2, 14-18. Pacific also argues that even if the Commission has the authority to impose ratemaking conditions in other Section 214 proceedings, it may not do so in this proceeding because according to them, they were not free to reject the certificate without violating a court order. *See* Pacific Reply at 8.

[10] *See, e.g.*, Bell Atlantic at 16; AT&T at 17-18.

[11] *See, e.g.*, Pacific at 8-9; NYNEX at 16; Northwestern at 11-13. AT&T at 14-15, citing, *e.g.*, GTE Corp. (GTE-Southern Pacific merger) FCC 83-269 (July 1, 1983). Northwestern also argues that the test enunciated is almost impossible to apply. For example, it states that "the possible complications that would arise in attempting to assess the non-duplication and direct benefit of construction involved for termination of each lease of joint facilities . . . makes such a task hopeless" and notes that under the Commission's holding a company would have the incentive to continue the leasing arrangements indefinitely to the detriment of the ratepayers. *Id.* at 10. *See also* AT&T at 14 ("Any disallowance of costs associated with the elimination of shared facility arrangements would stifle reconfiguration of the network to accommodate growth and innovation.")

[12] Pacific at 23; Ameritech at 5 n.15; Northwestern at 13.

established.[13]

10. Finally, several of the operating companies allege the imposition of the cost accounting conditions will have a severe impact on them and will vitiate certain "guarantee" provisions established in the MFJ. Bell Atlantic, for example, states that a central premise of the MFJ is that interexchange carriers should bear the cost of equal access and network reconfiguration since those costs primarily benefit them and states that our actions could relieve AT&T from its guarantee of the costs.[14] In addition, it argues that disallowance of costs and the corresponding depression of operating income may lead to an increased cost of capital for the operating companies. This, according to Bell Atlantic, would be at odds with the District Court and this Commission's consistent efforts to assure the financial viability of the divested companies.[15]

11. GTE, the only petitioner other than AT&T and the Bell petitioners to comment on the cost-related conditions, requests that we make it clear that divestiture-related administrative expenses (including litigation expenses) incurred prior to 1983 were included in our treatment of administrative expenses. In addition, GTE states that certain amounts in Account 323 historically have been reclassified to above-the-line accounts for division of revenues purposes. GTE asks that our Order be clarified to state that the amounts reclassified to Account 323 and 103 must be left "below the line" for division of revenue purposes.

12. With respect to the reporting conditions imposed in the Order, the operating companies generally raise two issues. First, several of the petitioners argue that the requirement that the regional holding companies submit reports is unlawful because the holding companies are not carriers and thus this Commission has no jurisdiction over them. They argue that although the regional holding companies wholly own the stock of several communications common carriers they do not offer to the public any communications common carrier service.[16] In addition, several companies note that the information requested relates to the operations of the common carriers and that the requested material can be obtained from

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[13] Pacific, for example, notes that Account 323 includes "all items not provided for elsewhere properly chargeable to income." Because, according to Pacific, there are accounts in the Uniform System of Accounts to which the divestiture-related costs are properly allocated and because the accounts were established by rulemaking, it would be improper to place the amounts in Account 323 without a rulemaking proceeding.

[14] Bell Atlantic at 4-6. *See also* New York at 10. The District Court in its July 8, 1983, decision initially ordered AT&T to reimburse the operating companies for any amount of network reconfiguration and equal access costs not recovered by January 1, 1994. The court amended the guarantee on July 28, 1983, to state that AT&T would be relieved of the guarantee to the extent that the operating companies fail to file or regulatory commissions fail to approve tariffs designed to recover the costs by January 1, 1994.

[15] Bell Atlantic at 10.

[16] *See, e.g.*, Ameritech at 8-11; BellSouth at 18; Pacific at 23; Southwestern at 19-20.

them. Thus, they assert that our extension of jurisdiction to the holding companies is unnecessary as well as legally unsustainable.[17]

13. The second challenge to the reporting conditions relates to the scope of the reporting requirements and availability of the reports. In addition to arguing that such requirements cannot be attached to a Section 214 grant since they are unrelated to the certificates sought,[18] several companies emphasize that it will not be possible to comply with some of the requirements because the requested reports either have been discontinued or are scheduled to be changed or discontinued after divestiture.[19] In light of this, New York suggests that the Commission modify the decision to specify only the Commission's objectives in requiring the reports. New York states that the Common Carrier Bureau staff could meet with the telephone companies to discuss what information is available.[20]

14. The petitions filed by NATA, Sprint and MCI generally request that we make certain of the reporting requirements either broader or more specific in order to ensure that we obtain particular types of information. In the Order, we required the regional holding companies to file with this Commission their operating company equal access and procurement plans, at the same time the plans are filed with the Department of Justice. NATA requests that the Commission amend the relevant conditions to require that each company also file with the Commission copies of their equal interconnection plans.[21]

15. Sprint and MCI request modifications to the conditions requiring the submission of equal access plans. Specifically, Sprint requests that in addition to requiring the submission of information on the standards of access provided to AT&T, we require the submission of information on access provided to the OCCs, including the standards to be provided under

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[17] *See e.g.*, Ameritech at 16. Ameritech states that "to the extent the information is available, the Ameritech Telephone Companies, as regulated carriers under the Commission's jurisdiction will provide it to the Commission." *Id.*

[18] *See* Pacific at 17-19, Northwestern at 15-16. Pacific also argues that it was denied due process when it was given just eight days to consider "onerous conditions on which the parties had no meaningful opportunity to comment." Pacific Bell at 20. BellSouth calls the reporting requirements "vague" and "unreasonably burdensome and . . . completely unnecessary." BellSouth at 4.

[19] For example, Bell Atlantic states that it does not intend to produce the E4928 reports in the future since they are of no use to the company.

[20] New York at 19. Southwestern asks that the Order be clarified to state that it does not require the continuation of indices, summaries or reports that otherwise would not be compiled. Southwestern at 18.

[21] As used herein "access" refers to the provision of exchange services to interexchange carriers for the origination and termination of interexchange telecommunications. "Interconnection" refers to the connection of customer premises equipment to the network.

Feature Group D.[22] Sprint also asks that we require the operating companies to provide Common Channel Interoffice Signaling (CCIS) interconnection to all interexchange carriers. MCI requests that we clarify our requirement relating to "standards of [access] provided to AT&T by the [divested] operating companies" to ensure that the information we receive is "*empirical*. . . standards for *embedded* AT&T access connections"[23] rather than theoretical standards for embedded access or information on *new* access connections. In order to obtain the empirical information, MCI requests that each company be required to submit sample measurement data of the relevant quality parameters.[24]

16. MCI and GTE filed oppositions to the AT&T and operating companies' petitions and the State of California filed a late "reply." MCI and GTE argue that this Commission does have the authority to impose rate-related conditions in a Section 214 Title II proceeding and that AT&T and the operating companies cannot claim surprise as to these conditions since GTE's petition to deny specifically asked that we condition the application upon the exclusion of MFJ reorganization costs for ratemaking and toll settlements purposes. GTE claims that there is no necessity to proceed under Section 201-05 and even if a hearing were required in order to place a rate-related condition on the authorization, the applicants did have a sufficient "hearing" in light of the absence of controverted issues of fact. California argues that in effect the cost of implementing the MFJ is a penalty imposed as a result of violations of the antitrust laws and thus should not be borne by ratepayers; rather the costs should be included in Account 370, extraordinary income charges.[25] MCI also argues that the Commission was acting well within its powers in imposing the conditions requiring equal access and service information to be submitted to it since the conditions "are intimately related to the fulfillment of the Commission's expectations."[26] It contends that the argument that the regional holding companies cannot be required to submit these reports since they are not "carriers" exalts form over substance.[27]

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[22] Feature Group D is the name given by the operating companies to the "equal access" that will be available to all interexchange carriers in the future. Sprint also asks that the Commission require that each carrier interconnected with the operating companies have a network manager to participate with the operating companies in network management.

[23] MCI at 2 (emphasis in original).

[24] MCI lists 14 quality parameters for which it seeks information. MCI at 5. As a separate request, MCI asks that the Order be clarified to include a requirement for filing of shared facilities agreements.

[25] Account 370, like Account 323, is a "below the line" account. California does not indicate why it believes Account 370 is more appropriate for accomplishing its purposes than Account 323 but notes that Account 370 includes penalties paid on account of violations of statutes.

[26] MCI Opposition at 2-3.

[27] *Id.* at 18.

17. AT&T and most of the operating companies opposed the petitions filed by GTE, Sprint, MCI and NATA. AT&T, for example, challenges GTE's request that the Commission include litigation expenses as part of the administrative expenses required to be borne by AT&T shareholders. The operating companies also object to the MCI, GTE and NATA requests relating to the submission of detailed access and equipment interconnection information. They argue that the issues raised are more properly dealt with in other proceedings or in other forums[28] and that much of the requested information already has been provided to carriers in other forums. Additional information would be time consuming and costly to provide according to the companies.[29] Mountain States also argues that it would be unfair to impose additional burdens as a prerequisite to a transfer that has already taken place.[30] Finally, in response to the Sprint request regarding CCIS interconnection, the divested companies note that under the Plan of Reorganization[31] AT&T was assigned the CCIS facilities. They state, however, that should CCIS ultimately be used by the operating companies, non-discriminatory access will be provided to all interexchange carriers.

III. Discussion

18. In addition to specific problems with several of the conditions that this Commission imposed in its Order, most of the petitioners challenge our authority to impose any conditions that are not directly tied to the facilities for which transfer authorization was sought or services provided over those facilities. We believe it is important, before addressing the challenges to specific conditions, to address generally our powers to impose such conditions.

19. Section 214(c) of the Communications Act gives the Commission power to "attach to a certificate such terms and conditions as in its judgment the public convenience and necessity may require." There are no exceptions or limitations provided in this section. In addition, Section 303(r) of the Act gives the Commission broad authority to "prescribe such restrictions and conditions, not inconsistent with law, as may be necessary to carry out the provisions of this Act." 47 U.S.C. § 303(r). We have found no cases, nor have petitioners cited any cases, that limit our powers in the manner in which they would have them limited. Nor are the conditions imposed in this case so different from conditions imposed in previous

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[28] *See, e.g.*, Opposition filed by the Central Service Organization on behalf of 17 operating companies at 5.

[29] *See, e.g.*, *Id.* at 7; Opposition of Mountain States at 3.

[30] Mountain States at 6.

[31] Pursuant to Section I(A) of the MFJ, AT&T was required to formulate a "plan of reorganization" to implement the divestiture. The plan was generally accepted by the District Court in its opinion of July 8, 1983.

cases as to raise questions as to their validity.[32] The fact that the conditions may be more numerous and more detailed than in the average Section 214 or 310(d) case reflects only the size and the importance of the particular application and the massive change that the divestiture has had and will bring upon the telecommunications industry in this country. It would have been an abdication of our duties under Sections 214 and 310 to have granted the application without considering the probable effects of divestiture upon the telecommunications industry and users. The majority of the conditions imposed reflect our concern that we be prepared to act should adverse consequences arise from the divestiture.[33]

20. With respect to the particular conditions, we have concluded, however, that some modifications should be made. With regard to the rate-related conditions, we now believe that the appropriate course is to condition the authorization upon the companies separately identifying administrative and network reconfiguration costs and submitting quarterly reports to this Commission detailing the costs incurred. At the same time, we will require the companies to provide separate calculations of their earned rates of return for their interstate operations or interstate access and their overall telecommunications operations under three conditions: 1) without including any network reconfiguration or administrative capital and expense; 2) including only the network reconfiguration capital and expense; and 3) including both network reconfiguration and administrative capital and expense. The quarterly reports will thus show us precisely what the divestiture-related network reconfiguration and administrative costs have been each quarter and the effect that inclusion of those costs would have on the carriers' rate of return.[34]

21. The comments have convinced us that, in this case, it is more appropriate to examine the administrative and network reconfiguration costs through the tariff mechanism. This will allow a more thorough examination of the actual costs incurred and the question of whether they

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[32] The petitioners object most strongly to the conditions that are rate-related. In AT&T (Transpac-2), 43 FCC 2d 1103 (1976), we conditioned the authorization of a submarine cable system upon AT&T and other companies filing tariffs implementing rate reductions that AT&T expected to negotiate with foreign correspondents. *See also* AT&T (Donnelley), 89 FCC 2d 1116 (1982), where we conditioned a grant upon AT&T filing tariff revisions making certain services available generally with uniform rates. With respect to the general reporting requirements, we note that they are not unlike the progress reports required in AT&T (Northeast Lightguide), 84 FCC2d 303 (1980). *See also* Graphnet Systems, Inc., 63 FCC 2d 402 (1977); AT&T, 2 FCC 308 (1936).

[33] In fact, some service problems have occurred, particularly in filling orders for new service, since divestiture. We have inquired into these problems and expressed our concern that they be remedied in a timely manner. *See, e.g.*, letter from Chief, Common Carrier Bureau to AT&T, March 8, 1984.

[34] In the Order, we required the actual equal access costs incurred to be reported together with the reports on the progress made in implementing equal access.

should be included in revenue requirements. Accordingly, should AT&T or any of the divested companies seek to include any administrative or network reconfiguration costs in the computation of the interstate revenue requirement in the future, the company must indicate in its filing that it has done so and justify its action.[35]

22. In a tariff proceeding we will have a better overall view of the carriers' revenue requirements and thus will be able to analyze more thoroughly the benefits and detriments of allowing or disallowing particular costs. We will be able to make a comprehensive analysis of what costs are sought to be recovered under particular tariffs and the effect such costs will have on particular ratepayers. With respect to the network reconfiguration costs, we will have additional information on the nature of the costs at the tariff proceeding stage. In reviewing the actual costs it may be important to weigh such costs against the costs of continued leasing of jointly used plant[36] and other means of providing service. It also may be important to consider the actual costs of reconfiguration in relation to the progress made by the divested companies in providing equal access, since these two activities are closely related. Parties to the tariff proceeding will be in a position to comment on whether particular divestiture-related costs are appropriately recovered from rates as proposed by the carrier, or whether some other recovery scheme is more appropriate. Thus, tariff proceedings would permit focused attention on such relevant questions as what costs are sought to be recovered; from whom; for which services; and over what timeframe. The range of options the Communications Act provides the Commission would permit a tailored response where particular questions are raised. *See, e.g.*, 47 U.S.C. §§ 204, 205. We conclude, therefore, that in a tariff proceeding we will be better able to weigh all the relevant factors in deciding whether the costs should be included in revenue requirement calculations.[37]

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[35] AT&T in its petition states that "[i]n none of the revenue requirement computations to support AT&T interstate rates now in effect was there any inclusion of these divestiture-related costs." Thus, with respect to divestiture costs, there is no need for the Commission to consider reducing the revenue requirement in the next proposal to revise interstate rates.

[36] The comments have suggested that a presumption of disallowance of network reconfiguration costs may encourage companies to continue uneconomic leasing of shared facilities. This is a result the Commission does not seek.

[37] Our action here renders moot the remaining legal arguments raised by the operating companies relating to the retroactivity of the conditions and the effect on state ratemaking. With respect to GTE's request that the Order be clarified to state that administrative costs incurred prior to 1983 are included in our treatment of administrative expenses, we note, first, that AT&T's listing of administrative costs (submitted to the Commission on July 29, 1983) clearly includes some administrative costs incurred in 1982. Thus, the identified administrative costs incurred prior to 1983 were included in our

23. With respect to the reporting requirements contained in the Order, we do not agree with the operating companies' conclusion that this Commission has no jurisdiction to require the regional holding companies to submit information for their operating companies. The question of whether a holding company that offers, through subsidiaries, telecommunications services may be considered a carrier was decided in *GTE* (GTE-Telenet), 70 FCC 2d 2249 (1979).[38] In that case, we found GTE Corp., which, like the regional holding companies, provided common carrier service through its subsidiaries, to be a carrier within the meaning of Section 214 when it acquired the Telenet Corporation. Our conclusion that GTE was a carrier was based in part upon our view that our statutory mandate could not be limited by the corporate structure that a company adopts to carry out its business purposes or by distinctions that are of no apparent practical significance. Our decision to place the reporting requirements on the regional holding companies was likewise based upon practical considerations. It stemmed in part from our understanding that some of the reports we were requiring would be filed with the Justice

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accounting conditions. We also note that reports on litigation costs have been submitted to the Commission since 1974. With respect to the ratemaking treatment of those expenses, we see no need to change our general policy reiterated only two years ago in *Litigation Expenses*, 92 FCC2d 140 (1982), and which is currently being reviewed by the Telecommunications Industry Advisory Group. GTE has also requested that the order be clarified to state that the amounts reclassified to Account 323 and 103 must be left below the line for division of revenue purposes. GTE argues that it is necessary to take this step in order to ensure that the Commission's intent that the costs be borne by AT&T shareholders be satisfied. Because we are now making no determination as to who should bear the divestiture related costs, it is not necessary to consider GTE's proposal as a condition to the divestiture authorization.

In this order, we shall not mandate any particular accounting treatment for the administrative and network reconfiguration costs. We note that the Central Services Organization, on behalf of the Bell operating companies, has submitted to us for our concurrence an accounting plan for the network reconfiguration and equal access costs and we have received comments upon that plan. *See* Public Notice 2414, released Feb. 14, 1984. We expect to issue an order responding to the proposal in the near future. We will accept California's "reply" as a late filed pleading in that proceeding. With respect to the administrative costs incurred by all the companies and the network reconfiguration costs incurred by AT&T, we request that the companies notify us in their quarterly filings the accounts (and the amounts in each account) to which such costs have been charged.

[38] U.S. West appears to argue that the Order was entirely grounded on Section 214 and that since U.S. West was only a party to the Title III portion of the consolidation application, the Order is without validity as it applies to U.S. West. However, the Order was grounded on both Section 214 and 310 of the Act. It is clear that this Commission can condition a license or transfer of license under Title III. *See* 47 U.S.C. § 303(r); Capital Telephone Co. v. FCC, 498 F.2d 734 (D.C. Cir. 1974). Therefore, U.S. West's argument is without merit.

Department by the holding companies[39] and in part from a desire that the reports come to us with as much uniformity as possible and a desire to have to deal with as few companies as possible in refining our information requirements. In addition, we had assumed that the regional holding companies would collect all of the requested information from their operating companies even without the conditions.

24. Furthermore, it is clear that, under Section 218 of the Communications Act, we could require the same information from the holding companies that we required in the Order. That section provides, in pertinent part:

> The Commission may obtain from such carriers and from persons directly or indirectly controlling or controlled by, or under direct or indirect common control with, such carriers full and complete information to enable the Commission to perform the duties and carry out the objects for which it was created.

It simply makes no sense to argue that although the Commission can obtain information about the carriers from the holding company under Section 218, it had no authority to do so in the context of this proceeding.[40] Accordingly, we reject the operating companies' arguments and will continue to require the reports to be filed by the holding companies.

25. As noted above, the second objection to the information requirements is that they are overly burdensome and might require the submission of reports that might not otherwise be produced. To a large extent we believe that the concerns raised by the petitioners stem from a misunderstanding of the Order. In the Order, we tried to make it clear that to the extent possible we would like to continue to collect information from the companies' own internal documents.[41] We also recognized that "some reports may not be prepared and some information may not be collected in exactly the same form as AT&T currently uses" and stated that we were interested in the submission of the same type of information

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[39] In fact, Ameritech (the holding company controlling Illinois Bell Telephone Co., Indiana Bell Telephone Co., Michigan Bell Telephone Co., The Ohio Bell Telephone Co. and Wisconsin Telephone Co.) is the entity that filed its operating companies' equal access plans with the Justice Department.

[40] In any event, it does not appear that the legal issue of whether we have jurisdiction to require the holding companies to submit the various reports has much practical significance here. All of the companies except Pacific objecting to the assertion of jurisdiction over the holding companies have indicated that the operating companies are willing to provide the information we seek to the extent that it is available. *See* Ameritech at 16-17; Northwestern at 15; NYNEX at 3, 19; Southwestern at 18. Although BellSouth does not specifically state that its operating companies will supply the information its petition "specifically [seeks] reconsideration of conditions 4, 5, 6, 7 and 8." BellSouth at 5. From this we assume that its operating companies intend to comply with our Order to the extent possible.

[41] *See* Order at para. 144.

as listed in the Order.[42] We stated that the companies should keep the Bureau informed as to how they proposed to satisfy our objectives. Thus, we contemplated that there would be some "give and take" as to the precise form in which the information would be submitted to us. In fact, several of the companies have indicated what reports will be available and in what form.[43] We request that other companies that have not yet contacted the Common Carrier Bureau do so within 45 days of release of this Order detailing the methods by which they propose to satisfy the reporting requirements contained in the Order. After the staff has reviewed all of the submissions it will respond quickly and where problems are evident, will attempt to work out a reasonable solution for all concerned.[44]

26. With respect to the requests by NATA, Sprint, and MCI that we modify the conditions to require the submission of additional information do not appear warranted at this time. We conditioned the application on the submission of the information we considered necessary to determine whether the primary benefits of divestiture to the public would in fact occur. In any event, while we do not see any need to broaden those

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[42] *Id.* The ordering clause specifically states that the companies shall submit information "similar" to that contained in the mentioned reports and indices. Order at para. 176.

[43] *See* Letter to the Secretary, FCC, from Alan J. Gardner, Pacific Northwest Bell, Feb. 28, 1984; letter to Chief, Common Carrier Bureau, from Gilbert M. Westa, Mountain Bell, Feb. 29, 1984.

[44] With the exceptions discussed below, we do not here make any final decisions on the form (or necessity of filing) the information to which objections have been raised. With respect to the 4E CUE report, we have been informed by several of the companies that they no longer own any No. 4ESS switching machines. Thus, that report has no relevance to those companies and need not be submitted. Because of other possible situations like this, we will modify condition number 10 to state that upon the request of a company the Common Carrier Bureau has the authority to waive any particular reporting requirement when it finds that the requirement is not relevant to one or more of its operating companies.

Three companies have indicated an intent to discontinue the database used to generate the E4928 report. We do believe that it will be necessary to receive the information contained in this report at least for the years 1983 and 1984 and will require all the companies to submit the information in the same format as it has previously been submitted to us by AT&T. The information contained in this report is one of the principal methods by which we will be able to evaluate and track the network before and after divestiture. Although two of the companies indicated that it would take several work weeks to prepare this information, we believe that the need for this particular information as explained in the Order outweighs the costs involved. Several companies have noted that they may wish to change the format of the Trunking Administrative Measurement Plan (TAMP) in the future. We will require, however, that the format previously used by AT&T be used at least for 1983 and 1984 data. We view use of a common format to be in the public interest; it is important for national emergency concerns to have as complete and easily useable information on trunking capacity as possible. Any changes to the format in the future must be approved by the Common Carrier Bureau.

requirements at this time we, of course, continue to have the authority to request such information in the future pursuant to Section 218.[45]

27. With respect to MCI's request that we clarify our requirement relating to the submission of information on access provided to AT&T, we agree that the information submitted should be empirical standards for embedded access connections rather than theoretical standards for embedded access or information on new access connections. We believe that this was implicit in our Order. At the same time, we are not now in a position to rule on each of the 14 quality parameters on which MCI seeks interconnection. The Common Carrier Bureau in its project to monitor the implementation of equal access will work with the carriers and other interested persons to determine the precise quality parameters for which information will be required.

28. Finally, we believe that Sprint's request relating to the operating companies' provision of CCIS interconnection is premature. Under the Plan of Reorganization, the operating companies received little or no CCIS equipment. The operating companies apparently have not decided to what extent they will implement CCIS in their networks. In addition, most of the operating companies have indicated that to the extent they do employ CCIS non-discriminatory access will be provided to all interexchange carriers.[46]

IV. Ordering Clauses

29. Accordingly, IT IS HEREBY ORDERED that the petitions for reconsideration and/or clarification filed by AT&T, Northwestern, New York, Bell Atlantic, Ameritech, BellSouth, Southwestern, Pacific, NATA, MCI, GTE and Sprint ARE GRANTED to the extent indicated herein and are otherwise DENIED.

30. IT IS FURTHER ORDERED that the Memorandum Opinion and Order in W-P-C-4955, FCC 83-566, is modified by deleting the conditions numbered 4-7 in para. 176 and by modifying conditions numbered 8, 10, and 11 to provide as follows:

> 8) AT&T and each regional holding company shall submit quarterly reports (January 1 through March 31, April 1 through June 30, July 1 through September 30 and October 1 through December 31) detailing the administrative and network reconfiguration costs actually incurred during the period. The reports shall be due 60 days after the close of each period.[47] The first report shall be due

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[45] The requests are also generally redundant. For example, Sprint requests information on the standards of interconnection to be provided under Feature Group D. Feature Group D is the operating companies' term for equal access; thus, the information should be submitted in their equal access plans.

[46] Opposition filed by Central Service Organization at 8.

[47] In the Order, the semi-annual reports had been due on January 1 and July 1 of each year. Because of the difficulty of submitting data immediately following the period for which the data is to be submitted by Order of May 29, 1984 the Chief, Common Carrier Bureau,

> September 1, 1984 (and shall cover the first two periods of 1984) and the last report shall be due September 1, 1994. (The report due on September 1, 1984 shall also include any administrative costs incurred in 1982 or 1983 not previously identified in this proceeding by AT&T). At the same time each company shall submit separately their earned rates of return for their interstate operations or interstate access and their overall telecommunications operations showing the rates of return: 1) without including any network reconfiguration or administrative capital and expense; 2) including only the network reconfiguration capital and expense; and 3) including both network reconfiguration and administrative capital and expense. Any carrier that seeks to include any administrative or network reconfiguration costs identified in these reports or any previously identified administrative costs in the computation of the interstate revenue requirement must indicate in its tariff filing that it has done so and justify why it has taken such action.

* * * *

10) AT&T and each regional holding company shall submit to this Commission indices, summaries and reports containing information similar to that currently contained in the System Letter Summary, the Technical Memorandum Index, the Bell System Practices index, the TB691 report, the database used by AT&T to generate the Dial Office Load Service Report, the database used to generate the 4E, CUE report, the E4928 report, the Bell System Statistical Manual, the operating company statistical manuals, and the Construction Budget Summary. Upon request of a company, the Common Carrier Bureau may waive any particular reporting requirement when it finds that the requirement is not relevant to one or more of its operating companies.

11) Within 45 days of release of this reconsideration order, AT&T and each regional holding company shall inform the Common Carrier Bureau as to how it proposes to report basic service quality measurements and shall provide the Commission with descriptions of any reports that may arise out of Service Evaluation System II. Each company shall cooperate with the Common Carrier Bureau in formulating service reports to be filed with the Commission.

31. IT IS FURTHER ORDERED that the Petition for Stay of Certain Conditions Pending Reconsideration filed by Bell Atlantic, the Motion for Partial Stay filed by Southwestern, the Request For Partial Stay filed by Pacific, and the Motion to Defer Identification and Reclassification of Divestiture-Related Administrative and Network Reconfiguration Costs filed by New York are DISMISSED as moot.

FEDERAL COMMUNICATIONS COMMISSION
WILLIAM J. TRICARICO, *Secretary*

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extended the dates for submission of the information to March 1 and September 1, respectively, of each year.

STATEMENT OF
COMMISSIONER HENRY M. RIVERA
CONCURRING IN PART

RE: Petitions for Reconsideration and Petitions for Clarification of the Commission's Memorandum Opinion, Order and Authorization in File No. W-P-C-4955 (AT&T Section 214 Divestiture Proceeding).

In the underlying order[1] which is before us for reconsideration, the Commission decided that administrative costs involved in implementing the Modified Final Judgment (MFJ)[2] should be borne by shareholders, not ratepayers. This decision was based upon specific findings that these nonrecurring, divestiture-related administrative costs, have "little relationship to the provision of common carrier service and do not appear to provide direct benefits to the ratepayer."[3] Nothing has occurred to alter my belief that these findings are still valid, particularly in light of the voluntary nature of this reorganization. It is significant that, on reconsideration, my colleagues have not modified these findings. The Commission *has*, however, altered the accounting treatment of these costs, by requiring them to be separately reported and by deferring to future ratemaking proceedings a determination of who must bear these costs.

I can concur in this modification because, in fact, this Commission has *not*, by this order, allowed the inclusion of these costs in the carriers' revenue requirements. The carriers must fully justify (and, importantly, the Commission must affirmatively find) the appropriateness of including these costs in interstate rates before the carriers may recover these costs from ratepayers. I believe this sufficiently protects the ratepayer.

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[1] FCC 83-566, released December 23, 1983.

[2] *United States* v. *American Telephone and Telegraph Co.*, 552 F. Supp. 131 (D.D.C. 1982), *aff'd sub nom. Maryland* v. *United States*, 103 S.Ct. 1240 (1983).

[3] *Order* at para. 124. To the contrary, the Commission found that shareholders of the predivestiture AT&T received certain substantial direct benefits from implementation of the MFJ—for instance, the lifting of the restrictions of the 1956 Consent Decree (thus, allowing entrance into additional unregulated lines of business) and the freedom to invest in parts of the system rather than the whole. *See Order* at para. 124.

Common Carrier, International
Rulemaking, Notice of Proposed

Further Notice of Proposed Rulemaking adopted regarding modification of Commission's authorized user policy concerning access to International Satellite Services of Communications Satellite Corp. —*Authorized User Policy*
CC Docket No. 80-170

FCC 84-151

BEFORE THE

FEDERAL COMMUNICATIONS COMMISSION

WASHINGTON, D.C. 20554

In the Matter of Proposed Modifications of the Commission's Authorized User Policy concerning Access to the International Satellite Services of the Communications Satellite Corporation	CC Docket No. 80-170

FURTHER NOTICE OF PROPOSED RULEMAKING

Adopted: April 11, 1984; Released: April 30, 1984

BY THE COMMISSION:

1. On January 13, 1984, the United States Court of Appeals for the D.C. Circuit[1] vacated and remanded our August 19, 1982, Report and Order in the above-captioned proceeding.[2] In taking its action the court found that we had "abused our discretion" in deciding our *Authorized User II* policy prior to considering the *Direct Access*[3] and *Earth Station*

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[1] *See* ITT World Communications Inc. v. FCC, No. 79-1046 (D.C. Cir. Jan. 13, 1984).

[2] *See* Proposed Modifications of the Commission's Authorized User Policy Concerning Access to the International Satellite Services of the Communications Satellite Corporation, 90 FCC 2d 1394 (1982) (hereafter, Authorized User II), *reversing* Authorized Users and Authorized Entities, 4 FCC 2d 421 (1966), *reconsideration granted in part* 6 FCC 2d 593 (1967). *See also* Aeronautical Radio, Inc., 77 FCC 535 (1980).

[3] Regulatory Policies Concerning Direct Access to INTELSAT Space Segment for the U.S. International Service Carriers, 90 FCC 2d 1446 (1982) (Notice of Inquiry in CC Docket No. 82-548.)

Ownership[4] inquiries. The court noted that we had failed to consider the effect of various direct access and earth station ownership proposals on our policy goal stated in *Authorized User II* of promoting intermodal competition.

2. However, the court did find that, as a matter of law, we have the power under the Communications Satellite Act of 1962, 47 U.S.C. §§ 701-44 (1976), to designate who may take service directly from the Communications Satellite Corporation (Comsat). The court further held that the Satellite Act gives us power to allow non-communications common carriers to lease satellite circuits directly from Comsat "so long as [such direct service] furthers the public interest. . . ." *ITT World Communications Inc. v. FCC*, No. 79-1046, slip opin. at 29-30 (D.C. Cir. 1984).

3. In our *Authorized User II* decision we had found that public interest would be served by a policy allowing Comsat to provide basic transmission capacity directly to users at U.S. international satellite earth stations under the same terms and at the same rates now applicable to common carriers. Under our 1966 *Authorized User* policy, we had limited Comsat to the role of a "carrier's carrier" providing satellite circuits solely to common carriers except under unique or exceptional circumstances. *See* 4 FCC 2d at 436. We also proposed to allow Comsat, through a separate corporate subsidiary, to seek authorization as a common carrier to provide international, end-to-end, communications services. The existing international communications carriers had argued that we could not adopt our proposed authorized user policy unless we simultaneously granted them direct access to INTELSAT and the right to build their own earth stations. We, however, concluded that our proposed, modified authorized use policy was separate from either of those other policies and that it could be implemented without action on direct access or earth station ownership. We also found, however, that the carriers direct access and earth station ownership proposals might be beneficial on their own merits and that they should be pursued independently. The Court of Appeals, however, disagreed with our conclusion and directed us to resolve the *Direct Access* and *Earth Station Ownership* proceedings before implementing our proposed *Authorized User II* policy.[5]

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[4] Modification of policy on ownership and operation of U.S. earth stations that operate with the INTELSAT global communications satellite system, 90 FCC 2d 1458 (1982) (Notice of Inquiry in CC Docket No. 82-540).

[5] The court of appeals also disagreed with the contention of the proponents that our modified authorized user policy automatically requires a grant of direct access and independent ownership of earth stations. The court, rather, conducted its own analysis of the issues and found that whatever action the Commission took would yield certain benefits and certain detriments and that it did not pre-ordain either denial or grant of the relief the international carriers seek in those proceedings. Rather, it merely required us to take action and to consider the effect of that action upon our proposed authorized user

4. The *Direct Access* inquiry considers requests by the international service carriers for some form of "direct access" to the INTELSAT space segment. In their filings in *Direct Access* the carriers seek the right to acquire INTELSAT satellite circuits from Comsat on either a capitalized lease or indefeasible right of user (IRU) basis. The *Earth Station Ownership* inquiry concerns requests by various international service carriers to own and operate their own satellite earth stations to operate with the INTELSAT satellite system outside of the Earth Station Ownership Committee (ESOC). At the time we were considering our modified *Authorized User II* policy the proponents of the direct access and earth station ownership policies asserted that these two issues were inextricably related to our proposal to broaden the class of users who may take service from Comsat. They thus argued that they would be unable to compete with Comsat under our revised *Authorized User II* policy unless we granted them the right to obtain satellite circuits from INTELSAT directly and to own their own earth stations. The proponents saw the need for the Commission to decide the direct access and earth station ownership issues concurrently with *Authorized User II* and also to condition the revised policy upon a favorable action on both those issues.

5. On March 30, 1984, we adopted a Report and Order in our *Direct Access* inquiry, FCC 84-129, ___ FCC 2d ___, in which we concluded that the proponents of direct access had not made a sufficient case to proceed further with their proposals and terminated the proceeding. Also on March 30, 1984, we adopted a Notice of Proposed Rulemaking in *Earth Station Ownership*, FCC 84-122, ___ FCC 2d ___, in which we tentatively concluded that allowing U.S. carriers to own and operate their own earth stations may increase efficiency and reduce the cost to end users of satellite services. As a result, we then put out for public comment a proposed, more flexible policy allowing independent carrier ownership of U.S. earth stations and providing for disposition of the current carrier and Comsat investment in ESOC.

6. In view of our action in those proceedings, and the instruction of the court of appeals, we here request further comments from interested persons upon the impact our actions in the *Direct Access* and *ESOC* inquiries may have on our decision to modify our 1966 authorized user policy. We emphasize that we are seeking comment on only a narrow question: the effect our recent actions in *Direct Access* and *Earth-Station Ownership* will have on the competitive impact of our proposed *Authorized User II* policy. For purposes of the comments, respondents should assume that we still favor a policy allowing users to lease "basic transmission capacity" directly from Comsat at U.S. earth stations and

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policy. It thus left the outcome to the discretion of the Commission, requiring only a reasoned analysis of the issues. *See* ITT World Communications Inc. v. FCC at pp. 44-8.

allowing Comsat, through a separate corporate subsidiary, to seek authorization under Section 214 of the Communications Act of 1934, 47 U.S.C. § 214 (1976), to provide end-to-end international services. Respondents should also assume for the purposes of the comments requested here that we shall adopt some form of broadened earth station ownership policy as proposed in our ESOC Notice of Proposed Rulemaking. We emphasize, however, that those assumptions are solely for the purpose of framing comments in this proceeding. They are not intended to foreclose comments in *ESOC* or this proceeding or to prejudge the outcome of either.

7. We also emphasize that we view the statutory question of our authority under the Satellite Act to broaden the class of users who may take service directly from Comsat as settled. The holding of the court has resolved that issue. We continue to believe that our revised authorized user policy can be successfully implemented in the absence of either (or both) direct access or independent earth station ownership. We nonetheless offer interested persons opportunity to comment upon the relationship of these matters and to present information on which we can reach a final conclusion.

8. We shall pursue this solicitation of comments contemporaneously with our rulemaking in *Earth Station Ownership.* Upon receipt of comments in both proceedings, we shall consider anew the relationship of our proposed broader earth station ownership policy, our denial of direct access and our proposal to broaden the class of users who may take service directly from Comsat.

9. Accordingly, pursuant to Sections 1, 4(i), 4(j), 201-205 and 403 of the Communications Act of 1934, as amended, 47 U.S.C. §§ 151, 154(i), 154(j), 201-205, 403 (1976), IT IS ORDERED that interested persons may file comments and reply comments on the relationship of our denial of direct access to INTELSAT and our proposal to adopt a policy allowing independent ownership of earth stations to our policy allowing the Communications Satellite Corporation to make basic satellite transmission capacity available to all users at U.S. earth stations and allowing it to provide international, end-to-end services through a separate corporate subsidiary.

10. IT IS FURTHER ORDERED that those filing comments and replies in this proceeding should file an original and five copies of their pleadings with the Secretary of the Commission and that they should serve copies on each of the entities who participated in the earlier phase of this rulemaking and whose names are listed in an appendix to this order. A copy of the reply comments should be served on all those who file comments.

11. IT IS FURTHER ORDERED, pursuant to applicable procedures set forth in 1.410 and 1.415 of the Commission's Rules, that interested parties may file comments on or before June 29, 1984, and reply comments on or before July 23, 1984. We shall consider all relevant and timely comments before taking final action in this proceeding. If a participant wants each Commissioner to receive a personal copy of its comments, it must file an original plus nine copies. Comments and reply comments should be sent to Office of the Secretary, Federal Communications Commission, Washington, D.C. 20554. Comments and reply comments will be available for public inspection during regular business hours in the Dockets Reference Room (Room 239) of the Federal Communications Commission, 1919 M Street, N.W., Washington, D. C. 20554.

12. IT IS FURTHER ORDERED, that for purposes of this non-restricted notice and comment rule making proceeding, members of the public are advised that *ex parte* contacts are permitted from the time the Commission adopts a notice of proposed rule making until the time a public notice is issued stating that a substantive disposition of the matter is to be considered at a forthcoming meeting. In general, an *ex parte* presentation is any written or oral communication (other than formal written comments/pleadings and formal oral arguments) between a person outside the Commission and a Commissioner or a member of the Commission's staff which addresses the merits of the proceeding. Any person who submits a written *ex parte* presentation must serve a copy of that presentation on the Commission's Secretary for inclusion in the public file. Any person who makes an oral *ex parte* presentation addressing matters not fully covered in any previously-filed written comments for the proceeding must prepare a written summary of that presentation; on the day or oral presentation, that written summary must be served on the Commission's Secretary for inclusion in public file, with a copy to the Commission official receiving the oral presentation. Each *ex parte* presentation described above must state on its face that the Secretary has been served, and must also state by docket number the proceeding to which it relates. *See generally*, Section 1.1231 of the Commission's Rules, 47 C.F.R. § 1.1231.

13. Pursuant to Section 605(b) of the Regulatory Flexibility Act (P.L. 96-354) IT IS CERTIFIED, that Sections 603 and 604 of the Act do not apply because the proposed, modified authorized-user policy will not, if promulgated, have a significant economic impact on a substantial number of small entities. *See* 5 U.S.C. §§ 603, 604, 605(b).

14. IT IS FURTHER ORDERED that the Secretary shall cause a copy of this order to be published in the Federal Register and shall mail a copy

of this NPRM to the Chief for Advocacy of the Small Business Administration.

FEDERAL COMMUNICATIONS COMMISSION

WILLIAM J. TRICARICO, *Secretary*

* Appendix A-may be seen in FCC Dockets Branch, 1919 M Street, N.W., Washington, D. C. 20554.

Issue, Rule 1.65
Remand

Commission remanded to Administrative Law Judge this proceeding for further evidentiary hearings and issuance of Supplemental Initial Decision. Issues are enlarged to include violation of Rule 1.65 and abuse of process.
—*Bendel B/cing Corp.*
BC Docket No. 80-97

FCC 84-213

BEFORE THE
FEDERAL COMMUNICATIONS COMMISSION
WASHINGTON, D.C. 20554

In re Applications of	
Bendel Broadcasting Corporation Muncie, Indiana	BC Docket No. 80-97 File No. BPH-10,655
Hoosier Favorite Station, Inc. Muncie, Indiana	BC Docket No. 80-98 File No. BPH-10,661
For Construction Permit for New FM Broadcast Station	

MEMORANDUM OPINION AND ORDER

Adopted: May 10, 1984; Released: May 15, 1984

BY THE COMMISSION:

Preliminary Statement

1. On May 19, 1983, the Commission denied review of a Review Board Decision granting the application of BenDel Broadcasting Corporation (BenDel) for a new FM radio station at Muncie, Indiana, and denying the mutually exclusive application of Hoosier Favorite Station, Inc. (Hoo-

sier).[1] BenDel was preferred based on a substantial preference for integration of ownership into management and a slight preference for diversification. Hoosier appealed the Commission's action to the United States Court of Appeals for the District of Columbia Circuit.[2] By Order of January 13, 1984, the Court remanded the proceeding to the Commission to allow it to reconsider its action in light of changes in core circumstances. The parties' views as to the appropriate action to be taken on remand were requested.[3] Comments were filed on February 9 in response to that request and reply pleadings were filed on February 16.[4]

2. As explained in greater detail below, we conclude that these proceedings must be remanded to the Administrative Law Judge for further evidentiary hearings and the issuance of a Supplemental Initial Decision. Recent developments indicate that BenDel has violated the Commission's reporting Rules, potentially undermining its comparative advantage over Hoosier. Additionally, because BenDel may not be the preferred applicant, a previously mooted issue concerning whether Hoosier has abused the Commission's processes must also be considered.

Background[5]

3. The questions before us grow out of BenDel's attempts to establish that it is financially qualified to construct and operate its proposed broadcast station. A financial issue was designated against BenDel because of questions regarding the availability of a $200,000 loan from the Eaton National Bank and Trust Company of Eaton, Ohio (Eaton Bank), 90% guaranteed by the Small Business Administration (SBA). BenDel's principal, Larry D. Benes, had apparently failed to meet several conditions of the loan. However, at hearing it appeared that the Mass Media Bureau's processing line had misconstrued amendments to BenDel's application indicating that all conditions but one had been waived by the SBA and that Benes had since satisfied the remaining condition. The ALJ summarily decided the financial issue in BenDel's favor and the Review Board affirmed.

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[1] *Muncie Broadcasting Corp.*, 89 FCC 2d 123 (Rev. Bd.), *recon. denied*, 89 FCC 2d 1331 (Rev. Bd. 1982), *rev. denied*, 54 RR 2d 42 (1983). A third applicant, Muncie Broadcasting Corporation, did not seek reconsideration or review of the Commission's action; its application is therefore no longer pending.

[2] *Hoosier Favorite Station, Inc.* v. *FCC*, No. 83-1667 (D.C. Cir. June 17, 1983).

[3] FCC 84I-9, released January 24, 1984.

[4] BenDel Request for Issuance of Supplemental Decision (BenDel's Comments; Comments in Response to Order of General Counsel Concerning Action on Remand (Hoosier's Comments); BenDel's Reply to Comments of Hoosier Favorite Station, Inc. (BenDel's Reply Comments); Hoosier Reply to BenDel Request for Issuance of a Supplemental Decision (Hoosier's Reply Comments).

[5] *See* references note 1 *supra* and *Muncie Broadcasting Corp.*, 89 FCC 2d 138 (Admin. L.J. 1981).

4. Thereafter, Hoosier, with the aid of then Congressman Paul Findley, attempted to secure information from the SBA concerning the loan. These efforts resulted in an internal investigation of the loan by the SBA. Based on information obtained through these efforts, Hoosier sought reconsideration of the Board's Decision in favor of BenDel asserting that financial, abuse of process, undisclosed principal, and lack of candor issues should be added against BenDel. These allegations chiefly concerned the SBA's purported waiver of a requirement that Benes inject $50,000 capital into BenDel. The Board denied reconsideration but stated that Hoosier's contacts with the SBA appeared to represent a deliberate attempt to interfere with BenDel's loan commitment. If BenDel were not the clear winner, the Board indicated that it would consider remanding the proceeding on an abuse of process issue.

5. During the pendency of its Application for Review of the Board's Decision, Hoosier continued to seek information regarding the loan from the SBA. Based on material obtained under the Freedom of Information Act, Hoosier requested financial, misrepresentation, reporting and abuse of process issues against BenDel. Hoosier again raised questions about the $50,000 capital injection requirement and, additionally, questioned BenDel's estimated costs of construction and operation. Hoosier also submitted a letter from an SBA official expressing doubt as to whether a loan could currently be justified based on BenDel's equity position which had deteriorated due to the costs of participating in the Commission proceedings and increased equipment costs. The Commission declined to add issues, noting the result of the SBA's internal investigation and letters submitted by BenDel, indicating that the loan commitment had been extended to March 10, 1983.

Reporting Violation

6. On January 7, 1983, while Hoosier's Application for Review and Petitions to Enlarge the Issues were pending before the Commission, the Eaton Bank informed Benes that the loan commitment would expire without the possibility of renewal on March 10. BenDel did not report the expiration of the loan commitment until June 17, the same day Hoosier filed its Notice of Appeal.[6] In its Brief to the Court, Hoosier contended that BenDel had violated Section 1.65 of the Rules, which requires applicants to report within 30 days substantial changes in significant matters. Because Hoosier raised this question for the first time in its Brief, the Commission sought the instant remand.[7]

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[6] BenDel's Comments, Apps. B, E.

[7] *See Hoosier Favorite Station, Inc.* v. *FCC, supra* note 2; Appellee's Request for Remand (October 7, 1983). Section 1.65 of the Rules requires an applicant to report within 30 days when information in an application is not substantially accurate and complete in all

7. BenDel explains, supported by an affidavit from Benes,[8] that upon learning of the forthcoming expiration of the Eaton Bank loan commitment, Benes immediately began making alternative financial arrangements. By March 10, he had arranged for a $200,000 equipment leasing arrangement from EMCO Financial Services, Ltd. (EMCO) and had an oral agreement with his father for a $50,000 loan. Benes claims that at this point he believed BenDel was financially qualified. Benes concedes that he did not bring the expiration of the Eaton Bank loan commitment to the attention of his communications counsel until mid-to late March. Even then he admits that because of counsel's heavy schedule and his own belief that BenDel was financially qualified he did not meet with counsel to discuss the need to report the recent developments to the Commission. Benes states that at this time he also had discussions with the Eaton Bank concerning the possibility of a new loan commitment.

8. After communications counsel in an April 6 letter admonished Benes of the need to meet to discuss reporting and alternative financial arrangements, Benes left a copy of the EMCO arrangement with counsel. When counsel again urged in an April 22 letter the need for a meeting, Benes, on May 2 met with counsel and agreed to rely on the EMCO arrangement. Around May 16, however, Benes learned that the Commission had upheld the Review Board's Decision granting BenDel's application. According to Benes, he once again contacted the Eaton Bank and the SBA, although his counsel continued to press him to make and report alternative arrangements. On June 6, counsel yet again admonished Benes of the need to report. Benes admits that counsel specifically warned him of the need to report by June 16, prior to the date on which the Commission's Order would become final. Benes met with counsel on June 14 and disclosed to counsel for the first time the January 7 letter from the Eaton Bank.

9. Benes and counsel met a second time on June 16, this time with the January 7 letter in hand. They prepared a pleading, which was filed the next day with the Commission and which disclosed the existence of the January 7 letter and the EMCO leasing agreement. This submission was supplemented on July 8, to report that the agreement with Benes' father for a $50,000 loan had been formalized, reduced to writing, and supported by a financial statement.

10. Hoosier asserts that the changes in BenDel's financial proposal represent substantial changes which should have been reported to the Commission regardless of whether or not BenDel could have certified that it was financially qualified. In any event, Hoosier does not agree that

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significant respects and to report other substantial changes in matters which may be of decisional significance. 47 C.F.R. § 1.65.

[8] BenDel's Comments App. A. *See also* Apps. C, D.

BenDel is financially qualified. According to Hoosier, Benes was aware of the requirements of Section 1.65 and his failure to report reflects at best a lackadaisical attitude, especially in light of counsel's urgings, and at worst intentional concealment. Hoosier suggests that, if the Commission had been aware of all of the facts, its prior actions would have been different. Hoosier further suggests that Benes deliberately waited until the Commission's action had become final before disclosing the facts. Hoosier also points out that Benes had previously been admonished by both the ALJ and the Commission that BenDel's reporting practices were unsatisfactory.[9]

11. BenDel maintains that it has not violated Section 1.65. In BenDel's view, it is significant that the Commission has recently modified its practice to permit applicants to certify that they are financially qualified without setting forth the details of their financial proposal in their applications.[10] Thus, BenDel argues that, since it always had financing and could have certified its qualifications, there were no significant changed circumstances to report. BenDel further asserts that counsel's admonitions to Benes were based on the mistaken impression that Benes had not secured alternative financing or were otherwise misplaced. BenDel characterizes its eventual reporting as a voluntary disclosure intended to demonstrate its improved financial position and forestall charges that it had withheld material information. BenDel rejects the suggestion that it deliberately waited until the Commission's action had become final.

12. We will add a reporting issue against BenDel. Even assuming Benes believed that BenDel could have certified its financial qualifications,[11] a change from a specific financial proposal to a general certification would nonetheless represent a substantial change of significant information contained in the application, which should have been reported as required by Section 1.65. In any event, in this case, the Commission had before it for consideration a specific proposal upon which BenDel was relying to establish its financial qualifications. The viability of that proposal was continually challenged by the competing applicant throughout this proceeding. Indeed, on appeal to the Commission, questions were again raised as to certain aspects of that proposal, *i.e.* the Eaton Bank loan and its viability. In all instances, BenDel steadfastly defended the viability of that proposal. And, of course, it was on the basis of that

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[9] Hoosier speculates without support that the EMCO letter was backdated. Hoosier also questions why Benes continued to negotiate with the Eaton Bank if he was satisfied with the EMCO arrangement.

[10] *Revision of Form 301,* 50 RR 2d 381 (1981).

[11] In *South Florida Broadcasting Co., Inc.*, 53 RR 2d 1683 (1983), the Commission held that an applicant filing the "old" Form 301, which required a detailed description of an applicant's financial proposal, could not thereafter certify its financial qualifications.

proposal that the Commission posited its ruling in this case. Since the Commission was not aware that the bank loan commitment had expired because of Benes' failure to report this matter, it issued its ruling based on inaccurate premises. Additionally, as explained below, we are not now able to find BenDel financially qualified, making the unreported matter significant. Furthermore, we agree with Hoosier that Benes' conduct strongly suggests at least negligence or inattentiveness, and possibly a lack of candor. This is particularly so because Benes, at various times, was admonished by the ALJ,[12] the Commission,[13] and his own counsel of the need to be more forthcoming. Accordingly, an evidentiary hearing is necessary to explore all of these matters more fully.[14]

Financial Qualifications

13. BenDel projects the following costs for the construction and three months operation of its proposed broadcast station:

Equipment

Transmitting Equipment	$ 21,735
FM Antenna Equipment	5,399
Tower Equipment and Services	28,000
Program Equipment	49,280
Studio Equipment	8,943
Processing and Monitoring Equipment	10,179
Transmission Line	3,733
	*127,269
Engineering Modifications	*16,000
Studio and Office Prep.	*18,000
Advertising and Promotion	*6,000
Contingencies (10% of items marked with asterisk)	16,726
Working Capital	50,000
TOTAL PROJECT COST	$233,995
Project Cost Less Working Capital	$183,995
Surplus from Leasing Letter for Cost Overruns	16,005

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[12] The ALJ imposed a slight demerit against BenDel based on Benes' failure to report that BenDel's corporate charter had for a period of time been revoked. 89 FCC 2d at 157.

[13] The Commission noted:

> Benes's performance with respect to these matters [the SBA's waiver of the capital injection requirement] has not been entirely satisfactory. By relying on generalized denials, Benes has made it more difficult for the Commission to learn the truth about the transaction at issue. 54 RR 2d at 45.

[14] *See Merrimack Valley Broadcasting, Inc.*, 55 RR 2d 23 (1983) petition for recon. pending, *appeal docketed sub nom. Community Service Broadcasting of Nashua, Inc.* v. *FCC*, No. 83-2166 (D.C. Cir. November 10, 1983).

BenDel's projected expenses do not include legal fees, which already exceed $100,000. However, BenDel represents that its counsel has agreed not to require any schedule of payments that would jeopardize BenDel's financial qualifications. To meet the listed expenses, BenDel proposes to rely on a $200,000 equipment lease arrangement from EMCO Financial Services, Ltd. through the Twentieth Century Financial Corporation and a $50,000 loan from Jerry Benes, the father of BenDel's president Larry Benes.

14. Hoosier contends that BenDel has not accounted for all of its costs or demonstrated that its available funds are sufficient. Hoosier asserts that BenDel has not shown how much of the $200,000 EMCO leasing arrangement funds must be used for freight and labor costs and will be unavailable for non-equipment related costs such as studio and office preparation. Hoosier also observes that BenDel has made no provision for loan repayments or legal fees.

15. We are unable to find that BenDel is financially qualified. In its prior proposal, BenDel listed approximately $105,000 in projected expenses beyond the cost of equipment.[15] It is not clear that the present proposal takes such costs into account. It is also unclear whether a leasing arrangement such as that involved here, would provide funds for BenDel's potential non-equipment related expenses.[16] The $50,000 Jerry Benes loan appears inadequate to cover these potential expenses. Thus, BenDel's proposal neither reasonably accounts for all of its potential expenses nor substantiates the availability of sufficient funds.[17]

16. Ordinarily these circumstances would warrant the addition of a financial issue. However, we are concerned that addition of a financial issue at this late stage of the proceeding might be inequitable. BenDel was previously able to demonstrate its financial qualifications based on the now expired Eaton Bank loan. The loss of BenDel's former financing arrangements may be directly related to the continuing challenges to the viability of the loan commitment noted above. In view of the foregoing, we believe it would be appropriate to give BenDel an additional opportunity

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[15] These were: operating expenses for three months, pre-broadcast engineering costs, engineering arrangements with other stations, lease deposits, loan repayments, studio and office renovation, technical consultant fees, pre-operational salaries other than engineering, and general and administrative expenses. 54 RR 2d at 46. As Hoosier points out, these expenses may well currently exceed former estimates.

[16] Benes states: . . .''[T]he EMCO credit line related only to equipment and installation. . .'' BenDel's Comments, App. A at 9.

[17] *See International Television Corp.*, 50 RR 2d 1478 (1982). The matter of BenDel's legal fees remains somewhat problematic. BenDel currently states that its counsel will not insist on a payment schedule for more than $100,000 in unpaid legal fees, that would jeopardize BenDel's qualifications. However, as Hoosier notes, the Commission was previously under the impression that BenDel's legal expenses were being satisfied out-of-pocket. 54 RR 2d at 46-47.

to demonstrate its financial qualifications.[18] BenDel may make a supplemental showing to the Presiding Judge either resolving the difficulties with its existing proposal noted herein or substituting alternative financial arrangements. We leave to the Presiding Judge's discretion the procedures to be followed in this regard. The Presiding Judge is directed to examine the supplemental showing and take such further action as may be appropriate based on the record then before him.

Abuse of Process[19]

17. On July 27, 1981, approximately a month after issuance of the Initial Decision, Hoosier's counsel wrote to the Acting Regional Administrator of the SBA, posing several questions about the BenDel loan commitment. These questions concerned: (1) the SBA's waiver of a requirement that Benes inject $50,000 capital into BenDel, (2) BenDel's unfavorable equity position, (3) the matter of an unpaid tax lien, (4) whether the SBA would require updated financial information from BenDel, and (5) the SBA's justification for extending the loan commitment. Hoosier sought additional information about the use of the loan proceeds on September 2. By December 16, the SBA had not yet made a substantive reply to Hoosier's inquiry. Hoosier's principal Roger Pogue, on that date, wrote to then Congressman Paul Findley of Illinois, alleging that BenDel did not appear to meet the SBA's normal credit requirements and questioning whether the SBA would actually make the loan. Congressman Findley, in turn, on December 18, wrote to SBA Regional Administrator Richard Durkin raising questions of whether a discrepancy existed in the waiver of the $50,000 capital injection requirement, and whether BenDel had insufficient equity. In summary, Congressman Findley asked who was providing capital to BenDel and what the basis for the loan commitment was in view of BenDel's apparent insolvency.

18. As a result of these inquiries, Durkin, on January 15, 1982, requested the Eaton Bank to withhold disbursement of the loan pending an examination of BenDel's status. Durkin reported this action to Congressman Findley on January 18. On February 24, Hoosier's counsel again wrote to Durkin reiterating a question about the waiver of the $50,000 capital injection requirement and asserting that BenDel had waived any right of confidentiality under the Privacy Act with respect to its SBA records. On March 1, Congressman Findley's Administrative Assistant Donald Norton wrote to express concern that the SBA might

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[18] *Cf. Las Vegas Valley Broadcasting Co.*, 73 FCC 2d 220 (1979).

[19] Documents relating to this matter were filed as appendices to the following pleadings: BenDel's Opposition to Petition to Reopen the Record and Petition to Enlarge Issues filed March 17, 1982; Application for Review of Hoosier Favorite Station, Inc. filed June 17, 1982; and Opposition to Application for Review of Hoosier Favorite Station, Inc. filed by BenDel July 2, 1982.

not be investigating all of the matters raised by Hoosier's and Congressman Findley's letters. Norton reviewed in detail the questions previously raised. On March 12, the SBA, treating Hoosier's inquiries as Freedom of Information Act requests, initially declined to release the contents of BenDel's SBA file.

19. BenDel, on the basis of a separate request under the Freedom of Information Act, obtained copies of the inquiries made to the SBA and submitted them to the Review Board. The Board concluded[20] that BenDel raised a question of whether Hoosier had abused the Commission's processes by engaging in conduct that brought undue pressure on the SBA and the Eaton Bank in a manner calculated to dissuade them from continuing their involvement with BenDel. The Board further concluded that Hoosier appeared to have gone beyond avid investigation and crossed the line into an active attempt to impede, frustrate, and obstruct the prosecution of BenDel's application. The Board said that, if BenDel were not the clear winner, it would consider remanding the case on an abuse of process issue.

20. After the Review Board issued its Decision, Durkin on June 2, 1982, sent Congressman Findley an eight page report of his examination of the BenDel loan commitment[21] and a separate one page response to Congressman Findley's specific question in a May 26 letter based on the Board's Decision. Durkin concluded that the loan commitment was proper and within the scope of the SBA's authority and that no inconsistent representations had been made to the SBA and the Commission.[22]

21. Hoosier, however, continued its investigation by bringing suit under the Freedom of Information Act in Federal District Court to force the release of BenDel's SBA file. This suit resulted in the disclosure of certain documents on October 4, and 29, and November 29, 1982.[23] These documents formed the basis of Hoosier's allegations before the Commission that BenDel was not financially qualified, had committed misrepresentations and reporting violations, and had abused the Commission's processes. As mentioned, the Commission rejected these allegations based in part on Durkin's report to Congressman Findley.

22. Following the initiation of the SBA's internal investigation of the BenDel loan, the loan commitment was extended at least three times. On April 19, 1982, the commitment was extended to October 10; on November

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[20] 89 FCC 2d at 1335-36.

[21] Opposition to Petition to Reopen the Record and Petition for Enlargement of Issues or Alternatively for Summary Denial of Application filed December 13, 1982 by BenDel, App. A.

[22] 54 RR 2d at 45.

[23] *See* Petition for Enlargement of Issues or Alternatively for Summary Denial of Application filed November 16, 1982 by Hoosier, Exh. A; Supplement thereto, Exh. C; Letter from George L. Lyons, Jr. to William J. Tricarico (November 23, 1982).

4 it was extended to December 10; and on January 4, 1983 it was extended to March 10.[24] As previously discussed, on January 7, the Eaton Bank notified BenDel that upon expiration of the commitment on March 10 it would not be renewed.

23. BenDel reiterates its allegations before the Review Board that Hoosier has engaged in a campaign to make false and reckless allegations to the SBA. For example, BenDel alleges that Hoosier did not inform the SBA that the Commission had found BenDel financially qualified, and that Hoosier continued to raise the matter of a tax liability that had long ago been discharged.[25]

24. Hoosier does not address the substance of the abuse of process charges in any detail. Procedurally, Hoosier maintains that the scope of the instant remanded proceeding encompasses only BenDel's qualifications and not Hoosier's. Substantively, Hoosier contends that its investigation represented the only course open to it under the circumstances.

25. We will add an abuse of process issue against Hoosier.[26] Like the Board, we are concerned that Hoosier may have gone beyond the bounds of zealous investigation and sought to interfere with BenDel's ability to prosecute its application.[27] We are especially concerned about the continued involvement of a Congressman in Hoosier's investigation. The participation of a Congressman as an advocate carries with it the potential for unfair influence.[28] We are also concerned that Hoosier's efforts may have intruded into a confidential or fiduciary relationship between the SBA, the Eaton Bank, and BenDel and may have been a factor in the Eaton Bank's ultimate decision to terminate its commitment to BenDel. Of course, a final conclusion as to whether Hoosier has abused the Commission's processes will require an examination of the totality of circumstanc-

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[24] Opposition to Second Petition for Enlargement of Issues or Alternatively for Summary Denial of Application filed January 5, 1983 by BenDel, and Attachments.

[25] The ALJ found that Benes had been delinquent in not paying his 1975 District of Columbia income tax until 1979. 89 FCC 2d at 143.

[26] We disagree with Hoosier's contention that examination of this matter is beyond the scope of the court's remand. Although the change in core circumstances giving rise to the remand directly involves only BenDel's qualifications, a reexamination of Hoosier's qualifications is nevertheless appropriate. A remand is warranted where there has been a change in core circumstances, since, otherwise, "the state of the record may preclude a just result." *Greater Boston Television Corp.* v. *FCC*, 463 F.2d 268, 284 (D.C. Cir. 1971), *cert. denied*, 406 U.S. 950 (1972). If the Commission ignored the fact that the change in core circumstances potentially rendered a mooted issue dispositive, a just result might well be precluded.

[27] *See Chronicle Broadcasting Co.*, 40 FCC 2d 775, 801 (1973); *WIOO, Inc.*, 54 FCC 2d 692 (Rev. Bd.) *modified*, 56 FCC 2d 817 (Rev. Bd. 1975).

[28] *Cf. Koniag, Inc., Village of Uyak* v. *Andrus*, 580 F.2d 601 (D.C. Cir.), *cert. denied*, 439 U.S. 1052 (1978); *Pillsbury Co.* v. *FTC*, 354 F.2d 952 (5th Cir. 1966).

es. However, we believe that a threshold showing has been made that an abuse of process may have occurred.

Conclusion

26. In view of the foregoing, we will remand this proceeding to the Administrative Law Judge for further evidentiary hearings and the issuance of a Supplemental Initial Decision. Pursuant to the directive of the Court of Appeals, the remanded proceedings should be conducted in an expedited fashion. We do not intend that any issues previously decided by the Commission (*e.g.*, the $50,000 check issue) should be reopened. However, it may appear to the Presiding Judge that a limited factual inquiry into such matters may be necessary to illuminate fully the remanded issues. The Presiding Judge should exercise his discretion in this regard to maintain the goal of conducting the proceedings in an expedited fashion.

27. ACCORDINGLY, IT IS ORDERED, That the issues ARE ENLARGED as follows:

> 9. To determine whether BenDel Broadcasting Corporation has violated Section 1.65 of the Commission's Rules by failing to report changes in its financial proposal and, if so, the effect thereof on its qualifications to be a Commission licensee.
>
> 10. To determine whether Hoosier Favorite Station, Inc. has abused the Commission's processes by engaging in conduct intended to impede, frustrate, or obstruct the prosecution of a competing application, and, if so, the effect thereof on its qualifications to be a Commission licensee.

28. IT IS FURTHER ORDERED, That this proceeding IS REMANDED for further evidentiary hearings on an expedited basis on the foregoing issues at a time and place to be specified in a subsequent Order, and that the Administrative Law Judge IS DIRECTED to issue on an expedited basis a Supplemental Initial Decision taking into account findings and conclusions made under the foregoing issues.

29. IT IS FURTHER ORDERED, That BenDel Broadcasting Corporation SHALL SUBMIT to the Presiding Judge a supplemental financial showing as herein provided within a time period to be specified by the Presiding Judge.

30. IT IS FURTHER ORDERED, That the Motion to Strike filed February 27, 1984 by Hoosier Favorite Station, Inc. IS DENIED.[29]

FEDERAL COMMUNICATIONS COMMISSION
WILLIAM J. TRICARICO, *Secretary*

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[29] Hoosier argues that BenDel's Reply Comments should be stricken as unresponsive and frivolous. Without otherwise characterizing BenDel's pleading, it is neither unresponsive nor frivolous.

Lottery
Mobile Radio Service, Cellular
Rules, Amendment of

Commission established rules to implement a lottery for cellular service in markets below the top-30, and modified several cellular rules and procedures for markets beyond the top-90.
—*Cellular Lottery Rulemaking*
CC Docket No. 83-1096

FCC 84-150

BEFORE THE
FEDERAL COMMUNICATIONS COMMISSION
WASHINGTON, D.C. 20554

In the Matter of

Amendment of the Commission's Rules To Allow the Selection from Among Mutually Exclusive Competing Cellular Applications Using Random Selection or Lotteries Instead of Comparative Hearings	CC Docket No. 83-1096

REPORT AND ORDER

Adopted: April 11, 1984; Released: May 24, 1984

BY THE COMMISSION: Commissioner Quello dissenting in part and issuing a statement; Commissioner Dawson concurring in part and dissenting in part and issuing a statement. Commissioner Rivera issuing a separate statement.

I. Introduction

1. In this proceeding, we are amending our rules to implement a system of lotteries to select cellular licensees from among competing applicants for markets other than the 30 largest, and modifying several cellular rules and procedures for applications for markets beyond the top-90 as a result of our decision to adopt a lottery for cellular service.

2. In the *Notice of Proposed Rulemaking* ("Notice") for this proceeding,[1] the Commission proposed a lottery procedure to select cellular

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[1] Cellular Lottery Notice, CC Docket No. 83-1096, 48 Fed. Reg. 51493, released October 28, 1983.

licensees for markets other than the 30 largest. We had previously considered adopting a cellular lottery on several occasions but declined to do so because we were concerned that there may be significant differences among competing applicants and, therefore, a lottery for cellular service would not be in the public interest.[2] However, because of the large number of cellular applications, and the administrative burden, expense, and delay in implementing service associated with processing these applications by traditional methods, we reevaluated our prior determination and proposed to utilize a lottery. We indicated that a lottery would bring service to the public in the quickest way possible, with the least cost to the public, the applicants, and the government and with no significant reduction in the qualifications of licensees. *Notice*, at para. 3. Accordingly, we solicited comments on the general proposal to use lotteries for cellular service, any modifications to the basic qualification standards, the geographical boundaries to determine mutually exclusive applications for markets not categorized according to Metropolitan Statistical Areas (MSAs) or New England County Metropolitan Areas (NECMAs), the applicability of minority or other preferences, and restrictions on transferability of cellular licenses. In addition, we proposed to retain the separate allocation for wireline and non-wireline carriers. Finally, we postponed the December 1, 1983 opening filing date for applications for markets beyond the top-90 until March 1, 1984.[3]

3. Over 136 comments, 45 reply comments, and hundreds of letters were filed, predominantly by entities involved in the cellular industry (*e.g.*, applicants, equipment manufacturers, investors, engineering consultants and law firms).[4] The vast majority of the commenters recommend that the Commission not adopt a lottery procedure for cellular services.[5] Comments that were representative of those opposing lotteries were filed by GTE Mobilnet Incorporated, Telephone and Data Systems, Inc. (TDS), the

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[2] *See, e.g.*, Cellular Communications Systems, 86 FCC 2d 469, 499 (1981), *modified*, 89 FCC 2d 58 (1982) (Reconsideration Order), *further modified*, 90 FCC 2d 571 (1982) (Further Reconsideration Order), *appeal dismissed sub nom.* U.S. v. FCC, No. 82-1526 (D.C. Cir. March 3, 1983); Second Lottery Report and Order, 93 FCC 2d 952 (1983), *recon. pending.*

[3] This filing date was temporarily postponed until the completion of this rulemaking by Order, 49 Fed. Reg. 7383, released February 24, 1984.

[4] A list of the parties that filed comments and reply comments is contained in Appendix A. While we do not recite in detail here all the arguments of all the parties, we have considered them in reaching our decision. A few arguments are not mentioned because they are not of decisional significance.

[5] Since the close of the formal comment period, a major group of nonwireline applicants have notified the Commission that partial settlements have been reached in 51 of the markets in Rounds Two and Three. As a result of these settlements, many parties who filed comments opposing lotteries now have changed their position, acknowledging the advantages of using a lottery for cellular applications. *See, e.g.*, Comments of American Cellular Network Corp., and Metro Mobile CTS.

Regional Cellular Companies,[6] American Teleservices, and Millicom, Inc. There was also a notable segment of the commenters in favor of the use of lotteries, including the Department of Justice, MCI Cellular Telephone Company, Western Union Telegraph Company, Metropolitan Radio Telephone Systems, Inc. (MRTS) and Cellnet Partners. In particular, the Justice Department suggests that we extend lotteries to any licenses not awarded in the top-30 and eliminate the set-aside for wireline carriers. There were also many comments which suggested that a lottery should be utilized only for applications for markets below the top-90. The comments completely diverge on the remaining issues for which we solicited comment, particularly on whether to retain the wireline set-aside.

II. Lottery Issue

A. Comments

4. The parties in favor of lotteries suggest various public interest considerations which militate toward a lottery. They argue that a lottery will speed up cellular awards and help to minimize headstart problems. Cellnet Partners advocates a lottery because of the substantial cost savings. It estimates that a lottery will save approximately $2 million for the Commission and between $160,000 and $414,000 *per applicant per market* ($129.6 to $336 million for the applicants in markets 31-90 alone).[7] This additional cost, they argue, would ultimately be borne by the subscribers. MCI suggests that these estimates are conservative since expenses for a hearing rise dramatically as the number of applications increase.

5. Many parties advocate a lottery because of problems inherent in comparative hearings. They point out that an inordinate amount of time is being spent by all parties searching for minor flaws; as a result, they contend, judges have been granting cellular applications based on only slight or moderate preferences. A few commenters suggest that several manufacturers have put together cellular packages ("turn-key" services) that provide all the requisite components and technology for providing cellular service to the public so that in many cases the manufacturers, rather than the applicant, actually determine the technical parameters of the system. Thus, they argue, despite the complexity of cellular technology, random selection will not produce an inferior cellular technical system

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[6] The cellular subsidiaries of the Regional Bell Operating Companies (formerly of A T & T) filed a joint comment (hereinafter referred to as "Regional Cellular Companies").

[7] Cellnet Partners' estimate is based on an experienced average rate per hour for professional services of $80 to $120, applied to an average of 2,000 to 3,450 hours per applicant per market for preparation of (1) the direct case, (2) motions and petitions, (3) rebuttal case, and (4) proposed findings of fact, and for attendance at the evidentiary session. The estimate does *not* include the cost of preparing the application or the cost of any proceedings following issuance of the Initial Decision.

or design. Finally, Cellnet Partners contends that comparative hearings disserve the Commission's goals of promoting innovation and technical diversity and minimizing unnecessary regulatory restraints.

6. The major argument raised by those parties opposing lottery is that it would be fundamentally unfair to parties who have applications on file for markets in Rounds Two (markets 31-60) and Three (markets 61-90), to change the rules in "midstream." They argue that these applicants have expended a substantial amount of time and money in reliance on comparative hearings in order to make their applications the "best" and that they now have "vested" *Ashbacker*[8] rights to have their applications considered comparatively on the merits. They assert that retroactive application of lottery procedures for applications already on file violates principles of due process. Many commenters argue that the proposals differ substantially in Round Two and Three filings, and will differ more substantially in markets below the top-90. As a result, they conclude, an inferior cellular application might be granted by lottery although it would not have survived a comparative hearing.

7. American Mobilphone of Alabama and others speculate that administrative convenience is the real reason that the Commission is proposing a lottery and maintains that this reason is insufficient. They also claim that there is no critical need for further expedition of cellular service. Many commenters dispute the Commission's estimates of the time savings of the lottery. Several commenters, including the Regional Cellular Companies, suggest that a lottery for Round Four will increase the number of applications and petitions filed and will decrease settlements. They further allege that a lottery will decrease the quality of the applications and create the potential for boilerplate or "copy-cat" applications. American Teleservices suggests that cellular service is not the type of service for which the lottery mechanism was designed because it is a complex service, requiring a high capital investment and technical expertise. Many parties object to a lottery insofar as it might require elimination of the wireline set-aside.

8. Several commenters present alternatives to lotteries. Metro Mobile CTS and others suggest that the comparative process can be fine-tuned to expedite cellular processing further. GTE Mobilnet and Centel Incorporated recommend that the lottery procedure be deferred for 90 days in order to encourage settlements. Tri-Cities Cellular Communications proposes that a lottery be used to reduce the number of eligible applications in each market to five and then a comparative hearing be held to select the ultimate cellular licensee. A recent letter from Senator Barry Goldwater, which was placed in the docket file for this proceeding, contains a suggestion that all applications be designated for hearing without any

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[8] Ashbacker Radio Corp. v. FCC, 326 U.S. 327 (1945).

prescreening and after a highly streamlined hearing a lottery be held among the highest-ranked applicants. Several commenters propose markets which, they argue, should be exempt from a lottery because of allegedly unique factors.[9] Henry Geller suggests employing auctions for cellular. Millicom recommends a "non-exclusive" cellular licensing scheme whereby a "lead" application would be selected by lottery or comparative hearing and all other qualified applications which conform to the "lead" structure would be granted on a non-interfering basis. Western Union suggests a "grant and go" proposal so that the winner of the lottery would be able to begin construction immediately without awaiting the outcome of any appeal of the selection process.

B. Discussion

9. We have carefully analyzed the lottery statute,[10] the accompanying *Conference Report*,[11] the *Cellular Lottery Notice*, and the comments. We find that the public interest will be significantly benefited by using a lottery instead of a comparative hearing to select licensees in the Domestic Public Cellular Radio Telecommunications Service for markets beyond the top-30.[12] A lottery procedure for cellular service can be expected to speed licensing of cellular radio service with no identifiable reduction in the quality of service to be provided. To the extent that there is some "unfairness" to applicants in markets 31-90, we find that it is far outweighed by the public benefits of using lotteries.

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[9] Alaska, Puerto Rico and the Gulf of Mexico are examples of markets suggested as unique because they are high cost rural areas. In addition, Telecom Plus Transmission Services, Inc. asserts that the San Juan license should be chosen by comparative hearing because it was erroneously omitted from the top-30 market list.

[10] The Communications Amendments Act of 1982, Pub. L. 97-259, Section 115, 96 Stat. 1087, 1094-95, enacted September 13, 1982, amended Section 309(i) of the Communications Act of 1934, as amended, 47 U.S.C. 309(i). This section originally was added to the Communications Act in Public Law 97-35, the Omnibus Budget Reconciliation Act of 1981, 95 Stat. 736-37. Because the Commission was unable to implement the statute, 89 FCC 2d 257 (1982), Congress revised the legislation in Pub. L. 97-259.

[11] H.R. Rep. No. 765, 97th Cong., 2d Sess. (1982).

[12] We have decided to adopt our tentative conclusion not to use lotteries as a *substitute* for comparative hearings for applications for the top-30 markets. Direct cases for these applications have already been prepared and filed. All applications for these markets have been designated for hearing and, in many instances, Initial Decisions have been issued. Notwithstanding this conclusion, it is our view that we have the authority under the public interest standards of Section 309 of the Act and the Administrative Procedure Act to hold a tie-breaker lottery as a *supplement* to a comparative hearing when two or more applicants are "tied" and the ultimate choice should be made randomly. *See* MCI Cellular Telephone Company, FCC 84-61, released March 6, 1984, at para. 57, *recon. pending* and *appeals pending sub nom.* Cellular Mobile Systems of Pennsylvania, Inc. v. FCC, Case No. 84-1131 (D.C. Cir. filed April 5, 1984).

10. *Legal Authority*. Section 309(i) of the Communications Act affords the Commission discretionary authority to grant licenses or permits through the use of a system of random selection when there is more than one application for an initial license for any use of the electromagnetic spectrum. 47 U.S.C. § 309(i)(1).[13] The legislation also requires the Commission to implement rules for a lottery system within 180 days of the enactment date of the statute. 47 U.S.C. § 309(i)(4)(A).[14] As a result, we adopted the *Second Lottery Report and Order*, in which we established generic rules to implement a lottery procedure, but declined at that time to extend the lottery procedure to cellular service.[15] The lottery legislation also authorizes the Commission to adopt a lottery procedure for a particular service *after* the initial rulemaking upon evaluation in a subsequent rulemaking proceeding. 47 U.S.C. § 309(i)(4)(B). The instant rulemaking was instituted pursuant to this subsection of the lottery statute. Consequently, it is beyond question that we have the authority to enact rules to implement a lottery for cellular service.[16]

11. *Public Interest Considerations*. The *Conference Report* accompanying the legislation enumerates several factors that the Commission should consider in determining whether a lottery will serve the public interest.[17] Such factors include: whether there are a large number of licenses available; whether a new service is being initiated resulting in a large number of mutually exclusive applications for each license; whether there is a significant backlog of applications; whether employing a lottery would significantly speed up the process of getting service to the public;

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[13] The Lottery Statute empowers the Commission to use lottery procedures in any proceeding in which the first application was tendered for filing on or after August 14, 1981. Round Two applications (markets 31-60) were filed on November 8, 1982; Round Three applications (markets 61-90) were filed on March 8, 1983.

[14] One commenter argues that we have no authority to implement a lottery because the Second Lottery Report and Order was adopted on March 31, 1983, twenty days after the expiration of the 180-day requirement imposed by Congress in Section 309(i)(4)(A) of the Act. This argument is specious. Pursuant to the Second Lottery Report and Order, we have been utilizing a lottery procedure for several services for almost a year. Although it is unclear what remedy Congress intended for our failure to meet its deadline, it appears that Congress did not intend for our authority to lapse.

[15] We did, however, include other common carrier mobile services. Second Lottery Report and Order, *supra* note 2, 93 FCC 2d at 992.

[16] Cell-Page of Allentown argues that a lottery would violate our responsibilities under Section 307 of the Act to make a fair, efficient and equitable distribution of radio frequencies among various communities. However, the Commission has long held that Section 307(b) does not govern the licensing of facilities in the common carrier land mobile radio services. *See* Orange County Radiotelephone Service, 5 FCC 2d 848, 850 (1966); Answerite Professional Answering Service, 41 RR 2d 552, 556 (1977).

[17] Conference Report, *supra* note 11, at 37.

and whether diversity of information sources would be enhanced.[18] Based on an analysis of these factors, we conclude that a lottery for cellular applications comports with the criteria for lotteries established in the *Conference Report.*[19]

12. First, a large number of cellular licenses are available; licenses are available in over 250 MSAs and NECMAs, as well as in countless non-MSA areas.[20] Second, cellular is a new service, for which there are a large number of mutually exclusive applications for each license. In markets 31-60, we have an average of 11 mutually exclusive nonwireline applications per market. Only three markets have five or fewer nonwireline applications; most markets have 12 or more mutually exclusive applications. The statistics for markets 61-90 are even more persuasive. The average number of nonwireline applications in each Round Three market was 16. The least number of applications in a market was 11, and the most number of applications in a market was 23. In a practical sense, comparative hearings involving this large number of mutually exclusive applications would be extremely complicated and burdensome, and almost impossible to conduct on an expedited basis.[21] Third, there is a significant backlog of cellular applications. In Round Two, there are 334 applications (274 nonwireline, 60 wireline) still pending.[22] In Round Three, we received 567 applications (484 nonwireline, 83 wireline); all of these applications are still pending. We anticipate, based on statements in some of the

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[18] The Commission, however, may consider other salient factors in making this public interest determination. *Id.*, at 38.

[19] American Teleservices argues that Congress did not intend the lottery procedures to be used for cellular service because of its high capital investment and required technical expertise. There is nothing in the statute or the Conference Report to support such a proposition. Furthermore, these factors are not relevant in deciding whether to use a lottery because they represent qualifying, rather than comparative, criteria. Before a cellular authorization is granted, by lottery or otherwise, we evaluate, *inter alia*, the financial and technical qualifications of the selectee.

[20] Some commenters argue that a lottery procedure is inappropriate for cellular service because there are only two licenses available per market. We reject this argument. Congress did not limit our discretion but rather left it to the Commission to define the "market" in which lotteries would be used. While it is true that only two licenses are available in each market, the more relevant factor is that there will be at least 500 cellular authorizations awarded nationwide. In this respect, low power television is no different: there are many local markets in which only one or two licenses may be awarded.

[21] With respect to the wireline allocation, in markets 31 - 90, the average number of wireline applicants in each market is three. On February 3, 1984, the Regional Cellular Companies reported that they have achieved a comprehensive settlement for most of these markets. *See* para. 31, *infra*. Similar notifications have been filed by other applicants involved in these settlements.

[22] Since the adoption of the *Cellular Lottery Notice*, we have granted nine wireline authorizations and one nonwireline market. These were markets in which there was only one applicant or the applicants fully settled.

comments, that at least 2,000 and perhaps as many as 5,000 applications will be filed for markets below the top-90; most of these applications will be mutually exclusive with at least one other application for the same geographic area. Fourth, a lottery would significantly speed up the process of getting cellular service to the public.[23] In the *Cellular Lottery Notice, supra* note 1, at para. 5, we estimated that a lottery would enable 90 percent of Round Two construction permits to be awarded by Spring 1984 rather then late-1985 under the existing expedited comparative procedures. Extending this analysis further, Round Three construction permits could be awarded by mid-1984, rather than late-1986.[24] In summary, an analysis of the factors contained in the *Conference Report* clearly indicates that the use of a lottery for cellular service will significantly benefit the public interest.[25]

13. Some commenters argue that the use of a lottery for Rounds Two and Three is an improper retroactive application of a Commission rule, under the doctrines of *SEC v. Chenery Corp.*, 332 U.S. 194 (1947) (*Chenery*) and *Retail, Wholesale and Department Store Union, AFL-CIO v. NLRB*, 466 F. 2d 380 (D.C. Cir. 1972) (*Retail Union*). We are not persuaded by this argument. The Court in *Retail Union* enumerates several factors to be considered in the balancing of the hardship from retroactive application against any public interest considerations: (1) whether the issue presented is one of first impression, (2) whether the new rule represents an abrupt departure from well established practice, (3) the extent to which the party against whom the new rule is applied relied on the former rule, (4) the degree of the burden which a retroactive rule imposes on a party, and (5) the statutory interest in applying a new rule despite the reliance of a party on the old standard. 466 F. 2d at 390.

14. With respect to the first factor, this is not a case of first impression. The Commission has considered the use of lotteries for cellular licensing on several previous occasions. *See* note 2, *supra*. Second, while a decision to adopt lotteries at this time is a departure from our previous determinations, this change of policy is justified due to changed

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[23] Some commenters claim that the certainty of litigation over the legality of using a lottery will negate any time savings resulting from a lottery procedure. We reject this argument. Any appeal from this proceeding will examine very narrow legal questions (*e.g.*, the reasonableness of instituting a lottery), rather than a multi-faceted comparative hearing record. Once the court upholds the legality of the lottery procedure, there will be few, if any, meaningful issues to be raised on appeal of a Commission decision granting a selectee's license. Thus, while it will take time now to adjudicate the lottery question, it will save time in the long run by simplifying appeals of individual authorizations.

[24] Because this proceeding has taken longer than anticipated, these estimates should be increased by several months.

[25] The fifth factor, diversity of information sources, does not apply to common carrier services, because common carriers provide channels for the carriage of information of the subscriber's choice.

circumstances. The history of the Commission's treatment of cellular issues reflects an attempt to find the best regulatory approach for expediting the provision of this new technology. To achieve this goal, we have found it necessary at times to reassess our evaluation of various policy matters and fine-tune the procedural structure. It is well established that the Commission has the authority to modify its policies and procedures as long as it supplies a reasoned analysis explaining why its prior policies are being changed. *See Greater Boston Television Corporation v. FCC,* 444 F. 2d 841, 852 (D.C. Cir. 1970). As the court explained in *General Telephone Co. of Southwest v. U.S.*, 449 F. 2d 846, 863 (5th Cir. 1971): "Where the on-rushing course of events have outpaced the regulatory process, the Commission should be enabled to remedy the problems . . . by retroactive adjustments, provided they are reasonable." In *Geller v. FCC,* 610 F. 2d 973, 979 (D.C.Cir. 1979), the court went one step further and found that we have not only permissive authority but an obligation to reexamine our procedures when abnormal circumstances warrant. We are changing our policy on lotteries for cellular service at this time because of our additional experience with the hearing process for the top-30 markets, our growing backlog, and our reevaluation that competition will ensure that any qualified applicant will provide high quality service to the public.

15. The third factor in the *Retail Union* analysis examines the extent that a party relies on the old rule. Since we are not modifying any substantive requirements for Rounds Two and Three, the basic content of these applications need not be substantially different if they are placed into a lottery from their present content. Other claims of harm as a result of relying on the Commission using comparative hearings are speculative and unsupported.[26] The fourth factor is the degree of burden on a party as the result of retroactive application of a rule. In this instance, there is no additional burden; in fact, a lottery substantially relieves a burden, resulting in dramatic savings of time and money. *See* para. 23, *infra.*

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[26] Several applicants claim that they have undergone unnecessary expenses because they would have filed less comprehensive applications under a lottery. However, since direct cases have not been filed for these rounds, it is uncertain what parts of the applications would have been different. Other applicants contend they would have filed more applications had they known that there would be a lottery. While a concern about potentially high litigation expenses may affect a company's decision on the number of markets to apply for, the ability to fund multiple system operations and to construct these systems within the prescribed time limits is likely to be a more important consideration in this decision. Ultimately, the number of markets for which an applicant applies is a private business decision. See the discussion at para. 23, *infra.* The fact that our action may, to some extent, frustrate the expectation of cellular applicants in Rounds Two and Three does not render it invalid in light of the mandate of the Lottery Statute, *supra* note 10. *See* Multistate Communications, Inc. v. FCC, No. 89-1296 (D.C. Cir. March 6, 1984).

16. Finally, we must examine the statutory interest in applying the new rule. The legislative history of the lottery statute indicates that Congress clearly intended the use of a lottery for applications already on file.[27] The public interest factors contained in the *Conference Report* focus, *inter alia*, on the number of mutually exclusive applications, the backlog of pending applications, and the speed of service. *See* para. 11, *supra*. These factors, which can only be evaluated once applications have been filed, exhibit Congressional interest in applying the lottery statute for applications on file. In summary, an analysis of the factors contained in *Retail Union* demonstrates that it is legally proper to use a lottery for Rounds Two and Three applications as well as those yet to be filed.

17. Having determined that we can legally implement a lottery for cellular service, we now turn to the issue of whether it is in the public interest to invoke our authority. First, since a lottery will speed up cellular awards, any potential long-term adverse impact on competition resulting from one competitor's headstart in a market will be mitigated.[28] Our headstart policy balances the potential (but yet unproven) impact on competition against the need for rapid implementation of cellular service. As a result, we consider requests for a moratorium on wireline cellular service only when a nonwireline applicant can demonstrate that permitting early entry into a particular market would not be in the public interest. *Report and Order*, 86 FCC 2d at 491 n. 57. *See also Chicago SMSA Limited Partnership*, FCC 83-458, released October 7, 1983. While this policy represents a reasonable balance between these competing objectives, it has been difficult to administer.[29] This dilemma is resolved by the rapid implementation of a lottery system because it enables both wireline and nonwireline carriers to initiate cellular service and compete for customers at about the same time.[30] This result is in the public interest because it expedites service to the public, provides consumers with a choice of service providers, and fosters healthy marketplace competition from the outset.

18. Second, there is no evidence that a lottery, properly implemented, will result in an "unqualified" applicant being licensed or in diminution of

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[27] For example, the *Conference Report* emphasized the Conferees' intention that the Commission use lotteries for licensing low power television stations, for which there was a "substantial backlog of applications on file with the Commission". H.R. Rep. No. 765, *supra* note 11, at 38.

[28] Early entry by one of two competitors is thought by some to be inimical to effective competition because it raises barriers to entry for the later entrant and prematurely establishes the structure and marketing practices of the industry.

[29] The headstart policy has presented several difficult issues which have consumed a considerable amount of staff hours.

[30] In view of the announced wireline settlement in most markets in Rounds Two and Three, we foresee headstart controversies proliferating. *See* para. 31, *infra*.

the quality of service tc the public. Many commenters argue that, contrary to the Commission's assertion in the *Notice,* substantial differences exist among applicants such that the public would receive significantly inferior service without a comparative hearing. The commenters point to several areas of differences that they found in their analysis of various markets: geographic coverage and population, the number of frequencies proposed, the number of cells, system costs, subscriber projections, and the extent of ownership participation in management. Their information illustrates that there may be differences among applicants; but they are differences in degree and not in kind.[31] Ultimately, competitive market forces and public demand will have more of an impact on the quality and scope of cellular service than the strength of an applicant's paper proposal. Thus, while there may be differences among applicants, the record does not show that the differences will be of sufficient magnitude and impact on public service to warrant the intense scrutiny and corresponding delay and burden of a comparative hearing. Moreover, we emphasize that, in order for an application to be included in the lottery, it will have to be acceptable for filing under our cellular rules. The staff will carefully pre-screen the cellular applications to ensure that deficient applications are not considered in the lottery.[32] We have in the past returned cellular applications that were unacceptable and we intend in the future to continue this practice.[33] In addition, once the lottery is completed, pleadings filed against the tentative selectee will be reviewed by the Commission (or the staff, acting under delegated authority). Only after this review of the selectee's application and the related pleadings and a finding that the selectee is qualified, will we grant the application.[34]

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[31] *See* MCI Cellular Telephone Company, *supra* note 12, and Rogers Radiocall, Inc., FCC 84-62, released March 6, 1984, *recon. pending.* As more Initial Decisions and Decisions on exceptions are issued, there will be a great pressure to conform the applications and direct cases to the rules of decision that are emerging, resulting in fewer differences among applicants.

[32] In order to be considered comparatively, a common carrier mobile services application must be "acceptable for filing". Industrial Communications, 53 RR 2d 38 (1983), *aff'd mem. sub nom.* Williams v. FCC, No. 83-1233 (D.C. Cir. Nov. 30, 1983). Moore's Service, 86 FCC 2d 787, 795 (Com. Car. Bur. 1981). In the top-30 cellular markets, the Commission has been lenient and has accepted applications which have contained a few minor deficiencies, Advanced Mobile Phone Service, Inc., 91 FCC 2d 512, 519 (1982), but no blatant deficiencies. For example, applications have been accepted even though they have lacked environmental statements or complete antenna structure sketches, or have included unauthorized extensions of the Cellular Geographic Service Area. Under the lottery procedures, the staff will continue to screen incoming applications to assure that they are "acceptable for filing" and will apply the screening criteria adopted in the top-30 markets. A key point here is that "substantially complete" applications will *not* be entitled to comparative consideration if they do not meet the "acceptable for filing" standard. *See* Industrial and Moore's Service, *supra.*

[33] *See* Public Notices, Common Carrier Public Mobile Services Information, Mimeo No. 1972, dated January 24, 1983, and Mimeo No. 2442, dated February 17, 1983.

19. Third, as demonstrated in *MCI Cellular Telephone Company* and *Rogers RadioCall, Inc.*, *supra* note 28, the comparative process sometimes results in less than ideal analyses because there are divergent approaches to cellular system design, and the expedited comparative hearing process is ill-suited for comparing these alternatives.[35] Cellular design involves a complex set of trade-offs among engineering, marketing and financial decisions. These factors are essentially business judgments that a cellular company must make in response to the demands of its customers, and a comparison of these business plans bears little relation to public interest objectives. For example, the designated issues do not include a comparative inquiry into the associated costs and benefits of a "gold-plated", high cost system as opposed to a "no-frills", lower cost system. Similarly, comparisons of technical proposals may be inconsistent with the Commission's goal of promoting diverse technical approaches to cellular service. In adopting its cellular rules and policies, the Commission has sought to avoid imposing any rigid system design concepts in order to permit applicants the flexibility (within certain parameters) to design their systems in different ways. 86 FCC 2d at 507. Once it is determined that a proposal meets the basic technical criteria so that the system is considered a *bona fide* cellular design, it might not be in the public interest to prefer one particular system design over another.

20. In addition, there are several weaknesses inherent in the comparative process which limit its utility in predicting who will be the best cellular system operator.[36] Many commenters criticize the expedited hearing process that we established because of its lack of comprehensiveness, inadequacy of information, absence of an agreed-upon evaluation system, reliance on assumption and simplification,[37] and problems of

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[34] We intend to take very seriously Congress' admonition in the Conference Report, *supra* note 11, at 39: "By permitting the FCC to make the findings [that the applicant is fully qualified] after an applicant is selected, it is intended that the Commission will be able to conduct *a more thorough and in-depth inquiry* than it could if it had to make a finding as to the qualifications of all applicants" (emphasis added).

[35] We emphasize, however, that our dissatisfaction with the expedited hearing process does not reflect a corresponding dissatisfaction with the performance of the participants in this process — particularly the Administrative Law Judges, the Separated Trial Staffs and the Mobile Services Division. To the contrary, they have worked admirably under difficult circumstances in uncharted areas and still have managed to meet our expedited schedule for processing cellular applications.

[36] On occasion the courts also have expressed their dissatisfaction with the comparative hearing process. *See, e.g.,* Central Florida Enterprises Inc. v. FCC, 683 F. 2d 503, 508 note 27 (D.C. Cir. 1982); Star Television, Inc. v. FCC, 416 F. 2d 1086, 1094-95 (D.C. Cir. 1969) (Leventhal, J., dissenting).

[37] For example, system coverage, a key aspect of the comparative process, is determined by using the Carey Report (FCC Report No. R-6406, "Technical Factors Affecting the

promise versus performance.[38] Because of these infirmities in the hearing process, the commenters contend, and we agree, that a standard of reasoned decision-making is difficult to maintain. In addition, many of the applicants in the smaller markets propose to rely on "turn-key" operations offered by leading equipment manufacturers. The success of an applicant in the smaller markets, therefore, will depend more on its marketing and service skill than on its technical expertise. We also expect that any cellular system may require a degree of adjustment in response to unexpected propagation effects or usage patterns. Therefore, comparisons of the theoretical "paper" system design contained in the applications will not necessarily be predictive of the ultimate technical operational characteristics of these systems. *See Rogers Radiocall, Inc., supra* note 28.[39]

21. Fourth, the expense of comparative hearings thus far has been enormous and is likely to grow exponentially for markets below the top-30. The product of these enormous expenditures is, as described here, a licensee whose service to the public may not be a predictable consequence of its being selected in the comparative process. Many commenters argue nevertheless that they have expended considerable resources to prepare superior applications in reliance on the Commission's decision that cellular proposals would be evaluated in the comparative hearing process, and that a change in the rules at this time would be fundamentally unfair. For example, American Teleservices states that its average cost per application in Rounds Two and Three was $150,000, whereas it could have produced an "acceptable" application for one-fifth the cost. Similarly, Continental Cellular Corp. claims to have spent "well over $100,000 per market" in Rounds Two and Three. We are not persuaded however that our implementation of lotteries is unfair or violates due process,[40] that

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Assignment of Facilities in the Domestic Public Land Mobile Radio Service"). However, the Carey method is a theoretical model for predicting coverage which does not take into account small-scale topographical considerations that are particularly relevant in systems using small transmitter coverage areas such as cellular systems. Thus, the Carey Report may not be the most accurate predictor of actual propagation characteristics under some circumstances. Rogers Radiocall, Inc., *supra* note 31, at para. 40 and n. 37. *See also* "Call Processing Protocol Part II," *Telocator Magazine*, April 1984, at 48C-51C.

[38] While a review of promise versus performance can occur in a renewal or revocation proceeding, it is difficult to enforce proposals contained in the initial applications for a technologically new, rapidly changing service, such as cellular radio service.

[39] For example, we have granted several authorized cellular systems the authority to make significant post-grant changes to facilitate future expansion plans, compensate for actual propagation characteristics, and substitute new antenna sites.

[40] American Mobilphone and others argue that a lottery for markets 31-90 violates their vested rights to a hearing under Ashbacker v. FCC, *supra* note 8. We conclude, however, that our use of a lottery for mutually exclusive applications is in accord with, rather than

any money spent to this point was spent in vain, or that past expenditure justifies far greater expenditures in the comparative process.

22. The argument that changing licensing procedures at this time is "unfair" is not persuasive. For one thing, every prospective applicant was (and still is) charged by the Commission with designing a cellular system to meet the needs of the public in the market in which it intended to apply. Beyond some minimum costs (about $25,000 to $30,000), the applicant could have spent as much or as little as it chose. The simple fact, not to be obscured by boasts about the quality of their proposals, is that applicants are likely to have spent a good deal of their investment primarily to prevail in the comparative process, not to design the best possible system (large or small, with frills or without) for the particular market.

23. Furthermore, the expenditures thus far incurred are small when compared to the high cost of preparing direct and rebuttal testimony, procedural motions, proposed findings of fact and appellate documents, as well as the cost of professional representation at evidentiary admissions and hearing sessions. Cellnet Partners estimates that the cost of prosecution from hearing designation to Initial Decision ranges from $160,000 to $414,000 *per application per market,* an estimate unrefuted on the record and considered conservative by another commenter. If we accept American Teleservices' assertion that the cost of an application in Round Two or Round Three ranged between $30,000 and $150,000 and if we assume that the applicant who spent the least for the application would also spend the least to prosecute in comparative hearing, then the cost of filing an application represents between 16 and 27 percent of the total expenditure through the issuance of the Initial Decision.[41] Whether the expenditure of $30,000 to $150,000 commits an applicant to spend

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violative of, *Ashbacker*. That decision, a seminal one in administrative law, was decided at a time when the Commission had no rules whatsoever in handling mutually exclusive applications. The Court held that fundamental fairness requires that competing applications be considered at the same time so as not to prejudice the evaluation of these applications. 326 U.S. at 333. The use of a lottery will comport with this aspect of *Ashbacker*. Subsequent case law building on *Ashbacker has held that the Communications Act's hearing requirement mandates that mutually exclusive applications be compared to determine which would best serve the public interest. E.g.,* Johnston Broadcasting Cp. v. FCC, 175 F. 2d 351 (D.C. Cir. 1949). Congress has amended the Act, however, to permit random selection of licensees instead of comparative hearings. Thus, to the extent that *Ashbacker* has been interpreted to require a comparative evidentiary "hearing" as opposed to comparative (i.e., simultaneous) "consideration", we conclude that such an interpretation has been overruled by the lottery statute. The D.C. Circuit recently made it clear beyond question that Congress may enact legislation that overrides applicants' vested Ashbacker rights and provides for a different method of awarding licenses. Multi-State Communications, Inc. v. FCC, *supra* note 26.

[41] Methodology: $30,000 divided by ($30,000 plus $160,000) equals 0.16; $150,000 divided by ($150,000 plus $414,000) equals 0.27.

another $160,000 to $414,000 is a matter of business judgment and strategy. The claims of unfairness serve only to obscure the underlying point: those who spent great sums in the hope that they would win the comparative hearing have no vested right in the process itself, but rather only an expectation.[42]

24. More important, however, our decision must ultimately weigh not simply the amounts already invested in the hearing process, but rather whether continuation of the process would, all things considered, significantly advance the public interest. There has been no showing by parties opposing lotteries how any additional expenses would contribute to higher quality applications or would significantly advance the public interest. After carefully balancing the individual private expenditures by existing and prospective applicants against the overall savings to all applicants and the government resulting from a lottery, we find that any harm to individual applicants which may result from our adoption of a lottery at this time is outweighed by the public benefits enumerated here.

25. A fifth public interest consideration concerns the expeditious development of cellular service. We reject claims that there is no critical need for further expedition of the cellular process for markets beyond the top-30. In the *Report and Order*, 86 FCC 2d at 489-90, we found that there was a substantial unserved need for mobile telephone service throughout the country. This conclusion was based on the lengthy waiting lists for conventional mobile service in most cities and letters from members of the public confirming the unsatisfied demand. And there is potentially a much greater unsatisfied demand than is suggested by the waiting lists.[43] Indeed, the large number of applications already filed is indicative of a service for which there is a high demand.[44] Furthermore, nationwide implementation of cellular service is in the public interest because it is likely to result in lower prices for cellular equipment and services[45] and

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[42] Expenditures of applicants in reliance on existing policy raise a private, rather than public, interest concern. *See* Mobile Telecommunications Corporation, 49 RR 2d 1506, 1511 (1981).

[43] In the Report and Order, *supra* note 2, we acknowledged that many potential users have been discouraged from using existing mobile services because of its poor quality and congestion on the limited number of available channels. Presumably, many of these people will subscribe to cellular service when it becomes known that cellular is a higher quality service than existing mobile services.

[44] A few commenters argue that the need for cellular is limited to the top-30 cities because there are unassigned conventional mobile frequencies in some areas. Our finding of need in the Report and Order was not limited to the largest cities, although the need is obviously more acute there. Consumers should not be denied expeditious availability of new technology simply because lower quality substitutes are currently available. *See generally* Property Depreciation, 83 FCC 2d 267, 281 (1980).

[45] Prices for cellular equipment and service will be lower when more people subscribe to cellular service because indirect expenses are distributed among more customers and

create additional incentives for accelerated research and development of cellular technology. Nationwide implementation of cellular service will also promote the institution of a national roamer service, because of the nearly simultaneous entry of many cellular carriers.[46] Finally, the nationwide availability of cellular service will benefit the public interest because this service is an efficient utilization of the spectrum which can result in greater productivity and energy savings.

26. Finally, we have considered the alternatives to lottery suggested by the commenters, and find that the lottery is the best approach to achieve our goals for cellular service. Several commenters suggest the following ways to fine-tune the comparative process: using "form" designation orders like those used in the mass media services, imposing page limitations for all submissions of the parties, eliminating cross-examination and oral admission sessions, limiting the number of objections, refining the issues in the designation orders, clarifying standards with respect to acceptability of amendments, and utilizing application analysts in addition to engineers in the processing of cellular applications. Other forms of streamlining include eliminating pre-screening and, not addressing petitions to deny in designation orders.

27. While these suggestions have surface appeal, we do not believe that streamlining the comparative process serves the public interest as well as the lottery does. Further streamlining does not promise the dramatic savings in cost and time to be derived from a lottery. It promises no relief from the blizzard of paper (direct and rebuttal cases, motions, petitions, proposed findings, exceptions) that has inundated our staff and the administrative law judges since June 7, 1982. A more streamlined comparative process does not promise a better qualified licensee than one chosen by lottery from a group of basically qualified applicants. On the other hand, streamlining the comparative process even further may exacerbate several inherent weaknesses of comparative hearings. For example, imposing strict page limitations and eliminating cross-examination altogether could result in a deficient record, thereby undermining the validity of the selection made.[47] The elimination of pre-screening would mean that applicants who filed defective applications would nevertheless be included in hearings. This would needlessly complicate an already difficult process. The suggestion that petitions to deny not be addressed

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because of economies of scale both in the production of equipment and in the provision of the radio service.

[46] Roamer service is the provision of service to subscribers (usually of another carrier) who wish communications service when traveling outside their "home" area.

[47] For example, no oral cross-examination was permitted in MCI Cellular Telephone Company, *supra* note 31, precipitating a Motion to Reopen the Record and a Commission decision discounting certain conclusions as unsupported by the evidence. *Id.* at paras. 40-41.

at the time of designation but instead be considered as issues in hearing is also unlikely to speed the licensing process. While this would permit the staff to issue designation orders more rapidly, it would result in a far more extensive inquiry in hearing, thus delaying the grant of an application. It is also predictable that modified procedures will elicit claims of denial of due process from losing applicants. Consequently, the modest cost and time savings during the hearing process will be vitiated by later appeals here and in the courts.

28. For similar reasons, we reject the alternative of utilizing a lottery in some, but not all, markets. Several commenters propose utilizing a comparative hearing for the "unique" markets. While we believe we have residual authority under the lottery statute to refrain from using the lottery in particular circumstances, we find no basis for making exceptions at this time.[48] A policy of utilizing a lottery in only some cases, or as some commenters have suggested, after a pre-lottery comparative process of some type, would be difficult to administer and would undoubtedly generate extensive litigation on each decision to proceed by lottery or comparative hearing. It is questionable, in fact, whether such procedures would save any time or resources. In the final analysis, streamlined comparative hearings, pre-lottery hearing processes and selective use of lotteries represent the worst of all possible worlds.[49]

29. Overall, any slight benefit that the public might realize through any type of comparative proceeding in identifying marginally better qualified candidates is significantly outweighed by the expense, burden and loss of time that the consumer and the government will suffer.[50] Vigorous competition between the two carriers in the market, regardless of the method by which each obtained its license, is far more likely to produce high-quality, low-cost service than any proposal designed to win a

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[48] See our discussion of San Juan, P.R., at note 83, *infra*.

[49] One commenter suggests that we institute auctions rather than lotteries. Auctions are not in issue in this proceeding, nor do we have clear statutory authority to use auctions, as we do lotteries. Millicom's sharing approach is also beyond the scope of this proceeding and, in any event, appears to be another attempt to resurrect the licensing scheme we rejected in the Report and Order, 86 FCC 2d at 477-78. Finally, near the end of our deliberations we received a letter from Governor Scott M. Matheson of Utah in which he suggests that the FCC delegate to the state commissions the authority to conduct comparative hearings to choose cellular licensees. Assuming that the states had the resources and expertise to conduct and decide comparative economic licensing hearings, there would be a fundamental legal impediment to this proposal. Under Section 5(c) of the Communications Act and Section 557 of the Administrative Procedure Act, the Commission may delegate its comparative hearing functions only to its own employees.

[50] *C.F.* Advanced Mobile Phone Service, Inc. 53 RR 2d 1127 (1983) (Los Angeles wireline settlement approved notwithstanding claim that comparative hearing might have identified marginally better qualified candidate).

comparative hearing. Competition will be achieved far sooner and at far less cost if we award licenses by lottery.

III. Wireline Set-aside Issue

A. Comments

30. In the *Notice* at paras. 13-19, we proposed to maintain the separate allocation for wireline and nonwireline carriers in markets 31-90, for which applications are currently on file, and for all markets below the top-90 during the remaining months of the set-aside.[51] The original rationale for adopting the set-aside was three-fold: to take advantage of the unique technical expertise of AT&T and the other wireline carriers; to expedite the introduction of cellular service to the public; and to maintain the traditional competitive market structure of the mobile service industry. 86 FCC 2d at 487-491; 89 FCC 2d at 69-74. In the *Notice*, we recognized that lottery procedures undercut the foregoing rationale to some degree and, thus, there may be some justification for eliminating the set-aside. However, we proposed to retain this structure for several reasons. First, we found, wireline carriers had relied on the decision to reserve a license in each community for the telephone company. Second, we were concerned that, if we eliminated the separate allocation for markets 31-90, considerations of due process would require us to reopen these markets to additional wireline applications. We pointed out that, under a policy set forth in the *Report and Order*, *supra* note 2, 86 FCC 2d at 490 n. 56, wireline carriers, unlike nonwireline carriers, are eligible to apply for cellular licenses only in the general areas in which they have a wireline presence; consequently, we reasoned, the elimination of the set-aside would require the elimination of this restriction on wireline eligibility so that it would be necessary to reopen the application process for these carriers in markets 31-90. We found this solution to be unacceptable because it would cause prolonged delay with no discernible public interest benefits. Finally, we stated our tentative belief that the set-aside should be retained because it assures that telephone companies will have an opportunity to participate in cellular service.[52] Our major concern here was the potentially adverse financial impact on the general financial

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[51] The separate cellular allocation for wireline and nonwireline carriers was scheduled to expire on April 8, 1984. However, we temporarily suspended the expiration of the set-aside pending a comprehensive resolution of this issue in the instant proceeding. *See* note 3, *supra*. A petition for reconsideration of this action was filed by Lincoln Telephone and Telegraph Company, *et al.*, arguing that set-aside should remain in effect. See note 67, *infra*, for our resolution of this matter.

[52] This conclusion was based, in part, on the premise that the separate allocation assures a competitive market structure in which two carriers with different histories and different approaches to service vie with one another in the marketplace. Notice, *supra* note 1, at para. 14.

health of wireline carriers and on local telephone exchange rates. *Notice, surpa* note 1, at para. 18.

31. All of the wireline commenters, of course, encouraged the Commission to retain the set-aside for markets 31-90, as well as to maintain the set-aside for the remaining markets. The Regional Cellular Companies support the set-aside primarily because it has facilitated settlements and expedited the nationwide introduction of cellular service. They explain that settlements were reached in each of the 18 of the top-30 markets in which mutually exclusive applications were filed, resulting in wireline authorizations in all top-30 markets; they also report that they have reached a settlement agreement for the wireline licenses in most of the markets in Rounds Two and Three in which there are mutually exclusive applications. United Telespectrum, Inc. and other independent telephone companies argue that without a set-aside, a single common lottery including both wireline and non-wireline applicants would statistically preclude them from any significant participation in cellular because of the large number of nonwireline applicants that they would be competing against. They also claim that wireline carriers remain uniquely qualified because of their experience with high capacity, digital switching networks and local exchange interconnection, and contend that it would be unfair to eliminate the set-aside because they have invested time, money, and effort in reliance on the set-aside. Many small independent telephone companies advocate retaining the set-aside, because their participation in cellular service is essential to the future viability of small telephone companies. They claim that cellular will eventually supplant landline local exchange service in low density, rural areas and that it would be unfair to deprive them from offering this substitute for local exchange service.

32. The nonwireline carriers diverge on whether to retain the set-aside for markets 31-90. Nonwireline carriers in favor of retaining the set-aside rely primarily on the potential disruptive effect of eliminating this policy for applications already on file. However, most nonwireline carriers recommend that the set-aside be eliminated for markets beyond the top 90. They explain that utilizing a lottery procedure provides a substitute for the speed of service rationale on which the set-aside was based in part, and they argue that the justifications contained in the *Cellular Lottery Notice* are insufficient to warrant the continuation of the set-aside. The nonwireline carriers also argue that the Commission's wireline financial health rationale is unfair because existing mobile carriers will also be harmed by the advent of cellular service just as much as existing telephone companies, but will not receive the protection of the set-aside.[53] Cellular Communications, Inc. objects to the Commission's reliance on the

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[53] In the alternative, many existing carriers request that a preference be established for existing mobile carriers who would be harmed by cellular service. *See* note 70, *infra.*

adverse impact on local exchange rates because no subsidy from cellular service to landline telephone service has been shown to exist.

33. The Justice Department recommends that the Commission eliminate the set-aside for wireline carriers. Justice asserts that wireline carriers do not deserve any special regulatory treatment; they are no more "qualified" than any other communications providers to deliver cellular service. Justice also disagrees with the Commission's analysis concerning the adverse effect on local telephone rates or the wirelines' general financial health, arguing that there is no basis for this conclusion.

B. Discussion

34. We have reexamined our tentative conclusion to retain the set-aside in view of the arguments raised in the comments. As an initial matter, there is no doubt that we have the authority to adopt separate wireline and nonwireline allocations. Under the Communications Act, the Commission has express statutory authority to "classify" radio carriers and to "[a]ssign bands of frequencies" to the different classes of carriers. 47 U.S.C. §§ 303(a), (c). The crucial issue then raised is whether, as a policy matter, it is in the public interest to have separate wireline and nonwireline allocations. While the commenters raise some persuasive arguments advocating the elimination of the set-aside in view of our lottery proposal, there are several reasons, on balance, which militate toward retaining the set-aside both for markets below 90 and for markets already on file. We first address markets for which applications are not yet on file.

35. Retention of the separate allocation assures that telephone companies, both large and small, will have an opportunity to participate in cellular service. We are concerned that if we eliminated the set-aside, the large number of nonwireline applications would statistically preclude wireline carriers from any significant participation in the provision of cellular service. Such a result would not be in the public interest. Cellular service is a local exchange radio service under Sections 2(b) and 221(b) of the Communications Act of 1934, which is a natural extension of local exchange landline service. *See Notice, supra* note 1, at para. 17; *Cellular Reconsideration Order*, 89 FCC 2d at 71; *MTS-WATS Market Structure (Access Charge Further Reconsideration Order)*, 49 Fed. Reg. 7810, released February 15, 1984, at para. 149.[54] Cellular service may, over time, supplant landline local exchange service in some areas. Indeed, many of the small independent telephone companies project that cellular

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[54] Cellular is also considered "exchange telecommunications" under the terms of the Modification of Final Judgment (MFJ) in U.S. v. American Telephone and Telegraph Company, 552 F. Supp. 131 (D.D.C. 1982), and will be offered by subsidiaries of the divested Bell Operating Companies (BOCs).

service will prove to be a cost effective means of providing basic telephone exchange service in remote areas where the cost of providing landline service is high.[55] These rural telephone companies should not be precluded from using cellular technology to provide basic telephone service.[56] While the Commission has long pursued the policy of encouraging competition in mobile services, it has never sought to displace the telephone companies themselves from providing such services. *Notice, supra* note 1, at para 11.[57] In addition, if rural telephone companies are precluded from providing cellular service, they may lose their landline subscribers to the cellular carriers. Ultimately, this diversion may cause rural companies to lose revenues, and inhibit their ability to provide local exchange landline service at affordable rates so that many individuals may be forced to forego telephone service. In recent proceedings, we have expressed our concern that the continued financial viability of small telephone companies is necessary to ensure our goal of universal service. *See, e.g., Further Notice of Proposed Rulemaking,* CC Docket Nos. 78-72 and 80-286, FCC 84-133, released April 11, 1984.[58] Although it has not been demonstrated with certainty that cellular service will supplant landline local exchange service, we are concerned about the potential long-term detrimental effects on universal service that could result from a premature elimination of the set-aside. While such long-term effects are not quantifiable at this time, the potential for adverse disruptive effects on universal telephone service persuades us that retention of the set-aside is in the public interest.

36. The wireline/non-wireline dichotomy also is consistent with the Commission's historical separate treatment of these two classes of carriers for most common carrier mobile frequencies. The Commission

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[55] *See, e.g.,* Comments and letters of Moultrie Independent Co., Organization for the Protection and Advancement of Small Telephone Companies, Huxley Cooperative Telephone Co., Michigan Independent Cellular Telephone Corporation, Big Sandy Telecom and Ollig Utilities Company.

[56] In addition, one commenter suggests that the digital switch used in local exchange service can be converted to accommodate both cellular and landline telephone service. Of course, if this were to occur, the wireline company would have to allocate costs accordingly to reflect the different uses of the switch, and are reminded of their equal interconnection obligations in this regard.

[57] The Commission once considered whether to prohibit the entry of telephone companies into the cellular market; however, this proposal was rejected because of compelling public interest reasons to support wireline ownership of cellular systems. 86 FCC 2d at 483-486; 89 FCC 2d at 66-69.

[58] This Commission is committed to the preservation of universal service. See MTS and WATS Market Structure (Access Charge Order), 93 FCC 2d 241, 567 (1983), *modified on other grounds,* 48 Fed. Reg. 42987 (September 21, 1983), *further modified,* 49 Fed. Reg. 7810 (March 2, 1984), *appeal pending sub nom.* NARUC v. FCC. No. 83-1225 (D.C. Cir. filed March 1, 1983). Joint Board Decision and Order, CC Docket No. 80-286, 49 Fed. Reg. 7934 (March 2, 1984), at paras. 29-48.

originally adopted the separate allocation policy in 1949 in order to protect the fledgling radio common carrier industry from telephone companies being licensed on all or most of the new mobile frequencies. *General Mobile Radio Service,* 13 FCC 1190, 1218 (1949). This policy, which was one of the Commission's first pro-competitive policies, has resulted in a highly competitive market structure in which two carriers with different histories and different approaches vie with one another in the marketplace. *Notice, supra* note 1, at para 14. Retention of the separate allocation policy through the period for initial application filing will ensure continued wireline participation in the provision of cellular services and will be a stimulant to extending the healthy competition in existing mobile services to this new age of cellular communications. Through parallel but separate lotteries, both types of communications carriers would be assured adequate representation in their respective markets, would be given an opportunity to continue offering the public their products based on their own traditions of service, and would compete for customers on the basis of price, quality and service features.[59] This underlying policy thrust has been pursued consistently since the 1949 initial allocation of common carrier mobile spectrum to both telephone companies and nonwireline carriers and has been a major component in our cellular policies to date.[60] We believe that the public interest will be ill-served by denying the public the benefits resulting from this industry structure.

37. Third, the separate allocation coupled with the wireline market presence requirement has been effective in expediting the provision of cellular service to the public.[61] As a result of these policies, we have granted a wireline authorization in every top-30 market, and have received major settlements for both the wireline and nonwireline authorizations in markets 31-90. Although a lottery procedure somewhat diminishes the need for settlements, there are several reasons for which resolution of mutually exclusive applications by settlement agreement remains in the public interest. *See Notice, supra* note 1, at para. 21. First, settlements

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[59] Wireline carriers are major providers of two-way mobile communications (as compared to paging service which is dominated by the RCCs). Every Bell operating company provides mobile service; for the year 1981, the BOCs had 59,746 units in service. The independent telephone companies had an additional 20,828 units in operation at the end of 1980. Notice, *supra* note 1, at para. 17.

[60] Recently the Commission proposed to eliminate the separate frequency allocation structure for the conventional two-way mobile services. Elimination of the Separate Frequency Allocation, CC Docket No. 83-1146, 48 Fed. Reg. 57571, released December 12, 1983. Although the Commission found that this allocation policy served its purposes well, this change was proposed to enable nonwireline carriers to apply for wireline frequencies which up until now have not been utilized. Similarly in this proceeding, we are limiting the duration of the set-aside to the initial application filing periods to prevent these frequencies from going unused. *See* para. 41, *infra.*

[61] *See* para. 30, *supra.*

allow many different parties with a variety of financial, technical and operational resources to participate in cellular service. This heterogenety is particularly important when there can be only two licensees per market.[62] Second, settlements minimize the administrative burden, delay and expense in granting a cellular license. Even with a lottery, we expect numerous petitions to be filed against the tentative selectee, and thus significant resources will be spent resolving these petitions, and administrative and judicial appeals are inevitable.[63] Consequently, the public interest is served by continuing these policies which have been so effective thus far in providing an atmosphere that is conducive to producing settlement agreements, and thereby expediting service to the public.

38. Fourth, eliminating the set-aside for markets 91 and beyond would be particularly unfair to small telephone companies who, thus far, have been excluded from applying for cellular licenses in the larger markets because of the wireline presence requirement. To eliminate the set-aside for the markets where these companies have a presence[64] would open up these markets to competing applications in a unified lottery and would be likely to preclude them from participating in cellular service in the smaller markets also. As a result, these telephone companies would be totally precluded from participating in the provision of cellular service.

39. Several parties argue that it would be in the public interest to remove the set-aside and conduct a unified lottery for both the wireline and nonwireline applications for markets 31-90. In the *Cellular Lottery Notice*, we expressed our concern that, if we eliminated the set-aside, considerations of due process would necessitate reopening these markets to additional wireline applications. Most commenters share this concern, conceding that it would be unfair to foreclose wireline carriers from applying outside their franchise area, while simultaneously allowing nonwireline carriers to apply for cellular service without eligibility restrictions. Consequently, if we were to eliminate the set-aside retroactively, we would have to give serious consideration to eliminating the wireline eligibility restriction retroactively. This change of policy could

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[62] Nevertheless, we will grant cellular applications only to applicants who are fully qualified to establish high-quality cellular systems. Advanced Mobile Phone Service, Inc., *supra* note 50, at para. 18.

[63] For example, if a wireline lottery is necessary in a market between 31 and 90, we estimate that it is likely to be August 1985 before petitions for reconsideration and appeals are finally resolved. On the other hand, an authorization as a result of a full market settlement is likely to be issued as early as August 1984, given that the settlement agreements for many of these markets are already on file.

[64] In markets where only one telephone company has a presence, that carrier could expect to receive a license (absent qualifying issues) if a separate allocation is used; without a separate allocation, the local telephone company would be only one of many applicants.

necessitate our reopening of these markets, resulting in delay that would be contrary to our objective of expediting the provision of cellular service, especially in view of the wireline settlements in Rounds Two and Three.

40. Overall, the public interest reasons for retaining the set-aside outweigh the arguments for eliminating it. We emphasize that this is a close case. The commenters, both those who advocate retaining the set-aside and those arguing for its elimination, have provided persuasive arguments to support their views. We recognize that there are equities weighing in favor of both positions. However, our decision to retain the separate allocation rests on a careful balancing of the public interest considerations presented by commenters, the equities raised and our determination that it would be counterproductive to modify this allocation structure at this juncture in our cellular processing. *See FCC v. National Citizens Committee for Broadcasting*, 436 U.S. 775, 793-797 (1978).

41. We will retain the wireline set-aside through the conclusion of the initial filing periods for the remaining MSA/NECMA areas and the non-MSA/non-NECMA filings.[65] After the initial filing periods have passed, we will reopen all remaining frequency blocks in areas which have not been applied for, without regard to a set-aside. The separate allocation policy was originally scheduled to expire after five years;[66] in the *Reconsideration Order*, 89 FCC 2d at 70, this was reduced to two years.[67] These sunset provisions were adopted so that all initial filings would be covered by the set-aside, while also ensuring that these frequency blocks would not go unused or lie fallow for any appreciable amount of time. *See* 86 FCC 2d at 488, 491; 89 FCC 2d at 79 - 71. *See also Elimination of the Separate Allocation Policy, supra* note 60. Those same considerations apply here. However, we have decided against setting a date certain for the expiration of the set-aside because it is difficult to predict when we will complete the initial licensing of cellular systems. Rather than setting an expiration date which inevitably would be extended, we are retaining the set-aside through the initial filing periods for all markets.

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[65] Concurrently with the set-aside, we will extend the wireline presence requirement through the conclusion of the initial filing periods for all markets. This requirement has served to limit the number of mutually exclusive applications and emphasize the link between local exchange service and cellular service.

[66] *Report and Order*, 86 FCC 2d at 488.

[67] As explained in note 51, *supra*, Lincoln Telephone and Telegraph Company has requested reconsideration of our Order suspending the expiration of the set-aside, arguing that the set-aside issue should not be reexamined, but rather should remain in force through the initial filing periods. In view of our action here, this petition is moot.

IV. Preference Issue

A. Comments

42. We invited comment on whether we can and should use any preferences in the cellular lottery. *Notice, supra* note 1, at para. 12.[68] Some two dozen commenters expressed opinions on the issue of minority preferences, with most parties agreeing that no minority preferences should be granted. They rely on the mass media/common carrier distinction, and state that the justification for minority preferences in mass media -editorial control, and resulting content diversity - is not present for common carrier services. Several commenters note that the inclusion in the lottery of a new criterion which was specifically not included as either a qualifying or a comparative issue in the rules would work an injustice upon those who have already filed applications. Shooshan and Jackson, Inc. advocates that there should be no minority preferences because the fulfillment of EEO requirements is a basic qualifying factor, not a comparative factor or preference basis. According to Triad Citizen Cellular Radio, Inc., it is clear from the filings in the top 90 markets that minorities are actively participating in the cellular proceedings, and are ready and able to be involved in cellular operations; therefore, no extra incentive in the form of a preference is needed.

43. There were only a few commenters who support the use of minority preferences.[69] They argue that the time is ripe to form a new policy on the issue of minority participation in telecommunications and that the initiation of a new service offers a unique opportunity to do so. They further argue that, quite apart from concerns with diversity of program content, the commission has historically stressed minority ownership of, and participation in, telecommunications enterprises as a valid policy goal.

44. There were also a great number of preferences suggested by the commenters other than for minority ownership. Several parties suggest preferences for local ownership; still others recommend that existing radio common carriers be given a preference to compensate for the financial harm expected to occur in conventional mobile services, much

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[68] While not technically a "preference," we proposed to give parties who enter into settlement agreements the cumulative number of chances in a lottery that they would have had if no settlement agreement had been reached. *Notice, supra* note 1, at para. 21.

[69] Cell-Tell Network, Cell-Fone of Canton and the National Urban League. In addition, the law firm of Lovett, Hennessey, Stambler and Siebert argues that the use of a lottery will result in the exclusion of minorities from participation in cellular service notwithstanding the inclusion of a preference system. They suggest instead that each minority applicant be reviewed individually to determine whether a particular application will tend to perpetuate or alleviate the exclusion of minorities from cellular radio ownership patterns. We reject this suggestion for the same reasons that we reject minority preferences for this service in general. *See* para. 47, *infra*.

like the "de facto preference" of the wireline set-aside. TDS and others propose a population and coverage preference. Cellular Telephone advocates a diversity preference for applicants who receive fewer cellular licenses. But the most frequent preference proposed by the parties was for settlement agreements. Most commenters agree with the Commission's suggestion that settling parties be given the cumulative number of chances to which their applications would have been entitled without settlement. Several commenters suggest giving an extra chance or doubling the cumulative chance. Many commenters request that a cumulative chance preference be awarded for settlements or joint ventures which were entered into prior to the application's filing. They argue that it would be unfair to penalize parties who achieved a partial cellular settlement before filing their applications.

45. There were many parties that were opposed to awarding any preferences. Coastal Utilities, Inc. contends that the Commission should not depart from its earlier conclusion that there will be no preferences in the common carrier services. Other commenters oppose preferences in general because such a system needlessly complicates the lottery procedures. The Justice Department and others oppose settlement preferences because of the potential for abuse of process. They explain that abuse is possible as a result of applicants filing applications while at the same time agreeing to settle in order to increase the chances of winning. Still another commenter was concerned about the anticompetitive effect of encouraging joint venture groups which can freeze out certain applicants.

B. Discussion

46. We conclude that no preferences should be awarded for cellular service. There were a host of preferences suggested by commenters. While appealing arguments can be raised regarding a number of these potential preference bases, none of these suggestions reflects sufficient public interest considerations to warrant inclusion in the cellular procedures. For example, we do not believe the public interest would be served by adopting a preference for local carriers.[70] Overall, we find that preferences needlessly complicate the lottery procedures and create enormous potential for application abuse and unproductive litigation on the validity of a preference.

47. With respect to minority preferences,[71] the commenters did not

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[70] A few carriers suggest that we award a preference for existing mobile carriers who may be harmed by the advent of cellular service, similar to the "preference" of the set-aside. We decline to adopt their suggestion. The set-aside is being retained because of a variety of interrelated public interest factors, not the harm to individual carriers. In addition, a preference in this regard would be extremely difficult to administer.

[71] The lottery statute mandates that significant preferences be granted to minorities for licenses in the mass media services, but does not address the applicability of preferences

present any reason to depart from our earlier determination in the *Second Lottery Report and Order* that no minority preferences should be awarded in common carrier services. We believe we have the authority to award minority preferences here, given a sufficient record upon which to act. On that basis, therefore, as noted above, we solicited comments on this issue. Unfortunately, none of the rationales for minority preferences advanced relate to public interest objectives for this service.[72] In the absence of some public interest goal that is relevant to these objectives, we must decline to award preferences here.

48. While we are not adopting any preferences for cellular service, we affirm our tentative decision to allow settling parties in markets 31-90 a cumulative chance to reflect any partial settlement. We will also accord this treatment to applicants in markets below the top-90 who settle after they have filed their applications. Some entities claim to have entered into pre-filing joint ventures in accordance with our policy encouraging settlements, and want their joint ventures to be recognized with cumulative chances in a lottery. There is no way for us to verify the motivations of parties who join together to file an application. Some may have joined in the hope that a joint venture would receive a comparative credit in a hearing. Some may have sought joint ventures because they had money but no technical or marketing expertise, while others may have had expertise but no money. Absent some objective verification of intent, seemingly a fruitless undertaking, we cannot find it in the public interest to recognize pre-filing "settlements".[73]

V. Filing Procedures and Qualifications Standards for the Beyond 90 Markets

49. In the *Cellular Lottery Notice, supra* note 1, at para. 8, we tentatively stated that applications for markets 91 and beyond would be filed in accordance with the regular Public Mobile Radio Services notice and cut-off procedures set forth in Part 1 and Part 22 of our rules. We have received a number of comments in this proceeding, however, suggesting that the use of regular notice and cut-off filing procedures will

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to common carrier service. The Conference Report, *supra* note 11, at 41, however, states that no preferences need be applied for common carrier services. Although it is unclear whether we have authority under the lottery statute itself to adopt minority preferences in cellular service, we have postulated that our general authority to act in the public interest may include the ability to award preferences. Notice, *supra* note 1, at para. 12.

[72] We noted in Florida Telephone Co., FCC 84-149, adopted April 11, 1984, that the Commission's commitment to a diversity of views to serve the public applies only to mass media services and was not a justification applicable to this common carrier service.

[73] Nothing prevents applicants from agreeing before the applications are filed that they will enter into a joint venture after the filing date, thereby obtaining a cumulative chance. However, to be eligible for a cumulative chance, each applicant must file an individually acceptable cellular application. *See* para. 71, *infra.*

not serve the public interest and proposing alternative or modified procedures. In addition, we specifically solicited comment on a number of related matters including whether to adopt geographic boundaries for the filing of applications for non-MSA and non-NECMA areas and whether the use of lottery selection procedures necessitates that we adopt basic service qualifications for all beyond 90 applications as a precondition to being placed in a lottery.

50. *Filing Procedures.* We adopted "one-day" or "date-certain" filing procedures[74] for the top 90 markets in order to reduce the delay in the filing of competing applications that occurs during the regular 60-day cut-off period set forth in Section 22.31 of our rules and to prevent applicants from engaging in one-upmanship to gain a comparative advantage.[75] We originally adopted this approach for the top 30 markets only;[76] however, we extended it to markets 31-90 as we became aware that there would be even more applications filed for these markets than for the top 30 markets, thereby increasing the potential for abuse of our processes.[77] In addition, we accepted applications in 30-market phases in descending size of population in order to reduce the processing burden on our staff and resources and to limit the time applications would have to await staff processing. The procedures reflected a policy of dealing first with the largest markets where the demand for cellular service was expected to be greatest, and where the shortage of mobile frequencies has been most acute.

51. With the adoption of lottery selection procedures, the use of notice and cut-off filing procedures for the below-90 markets is inappropriate. Although applicants would have no incentive to engage in one-upmanship without a comparative process, competing applicants could still examine an earlier filed application and simply copy it in order to obtain a "lottery ticket". Thus, notice and cut-off procedures which allow public inspection of earlier filed applications would allow copying and would result in the filing of superficially acceptable "lottery entries" by insincere applicants. This would contravene our intention that cellular applicants participate directly in the development of their proposals and that such proposals reflect the applicant's own determination of how best to serve a particular

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[74] Under these procedures, applicants are actually given a two-week period ending on the specified date to file their applications.

[75] One-upmanship occurs, under notice and cut-off procedures, when an applicant looks at the earlier-filed applications for a market and attempts to improve upon them in its own competing application in order to gain a comparative selection advantage. As a result, the applicant's proposal would no longer reflect its best view of how to serve the market but instead its use of the administrative process to obtain an advantage over competitors. A one-day filing period prevents this practice.

[76] Reconsideration Order, 89 FCC 2d at 87-88.

[77] Further Reconsideration Order, 90 FCC 2d at 574-75.

cellular market area. Under a date-certain approach, such as we are adopting, applications may not be viewed prior to the filing deadline, thereby precluding the copying problem.

52. The primary reason we have been reluctant to abandon notice and cut-off application procedures for the smaller cellular markets is that they do not "force" an applicant to file for a market which may not be ready to support cellular service.[78] This does not seem to be a problem in most cellular markets, however. Our review of the comments in this proceeding indicates that prospective cellular providers are prepared to apply for many of the remaining markets as soon as we are ready to accept their applications. Moreover, a one-day filing period, which will encourage the filing of applications for all viable markets at the earliest time possible without the delay and uncertainty of awaiting expiration of the cut-off period, is consistent with our desire to expedite the availability of cellular service on a nationwide basis.[79] However, we will also establish a subsequent open-ended period, subject to notice and cut-off rules, for the filing of applications for any initially unapplied for markets, as discussed below.

53. We will not adopt "blind filing" notice and cut-off procedures as suggested by a number of commenters. Under this approach, we would withhold public inspection of the first-filed and all subsequent applications for a market until expiration of the cut-off period. A simple public notice announcing only that an application was filed for a given market would trigger the 60-day period. This approach would be significantly more burdensome to administer than a one-day process and we see no particular advantage to it given the high degree of applicant interest in most markets. The one-day filing procedure, which also prevents copying, has worked well in the top 90 markets and its adoption for the remaining markets will effectively prevent the abusive practices discussed above.

54. We have decided to accept applications for the below 90 markets in phases similar to those used for the above-90 markets. There, we accepted applications in three 30-market phases in order to reduce the administrative processing burden on our staff, avoid having applications filed just to sit on the shelves awaiting processing and establish an orderly processing system. A number of commenters urge, however, that we not postpone further the fourth round filing date and that we accept applications for *all* remaining markets either on a specified date or over a very short "window" period. For example, Cel-Tel suggests that we begin accepting applications for all remaining markets on March 1, 1984, but that final

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[78] Further Reconsideration Order, 90 FCC 2d at 575.

[79] The applications for markets 31-90 have been pending longer than we anticipated because we did not anticipate the burden on our resources that the process would impose. The lottery procedures we adopt here should reduce the backlog rapidly.

deadlines for each group of 30 markets be staggered throughout the remainder of the year.[80] We find that the approach we have used for accepting filings for the top-90 markets is administratively simpler, will not require that we sequester the applications from public inspection until the final deadline for each group, and will better accommodate the large number of anticipated filings without overburdening our resources. There is no public benefit in applicants rushing to prepare applications if we are not ready to process them expeditiously. This procedure should also serve to reduce the number of updating amendments required under Section 1.65 of our rules. Finally, since the setting of a phased acceptance schedule for the remaining markets is intended to establish and maintain an orderly processing system and is primarily an administrative concern, there is no prejudice or disadvantage to prospective applicants in our deciding not to accept applications for all remaining markets at one time.[81]

55. We will accept applications for the remaining MSAs and NECMAs in groups of 30 in decreasing size of population.[82] Applications for markets 91-120 will be due on July 16, 1984.[83] We expect to establish dates

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[80] We have already deferred the March 1 filing date pending completion of this proceeding. *See* note 3, *supra.*

[81] Applications for a market or any part of a market are due on a specified date and subsequent applications for that market or any part of it will be rejected as untimely. *See generally* Green Country Mobilephone, Inc., FCC 84-180, released May 15, 1984. Under sections 22.903(d) and 22.913(a) of the Rules, however, we will allow a cellular permittee or licensee to apply to modify its existing authorization in order to increase its CGSA within the boundaries of the relevant MSA or NECMA. Although this constitutes a "major application" and must be placed on Public Notice for Petitions to Deny, we will not permit the filing of mutually exclusive applications during the initial nationwide cellular licensing period. We have long held that the public interest is served by allowing a cellular system operator the flexibility necessary to modify its system in response to marketplace forces. *See* Cellular Communications Systems, 86 FCC 2d at 509. Such modifications are natural extensions of an existing permittee's or licensee's cellular authorization in response to growing or changing demand and should be subject to minimal regulatory oversight during the initial nationwide cellular licensing period. However, after the initial application phase, we will reopen any unapplied for areas to any applicant under regular notice and cut-off rules as discussed further in para. 55, *infra.*

[82] Applicants are expected to file their applications using the new application forms as specified in the Revision and Update of Part 22 of the Public Mobile Radio Services, Rules, 49 Fed. Reg. 3296, released December 19, 1983, *recon. pending,* when they become available. A Public Notice will be issued when the new forms have been approved by the Office of Management and Budget and are available for use. Until that time, the existing forms should be used.

[83] Since we established our initial phased application acceptance schedule, the Office of Management and Budget added San Juan, Puerto Rico to the list of MSAs. (See Public Notice of November 1, 1983 for a discussion of other changes in MSA markets). Because San Juan is now one of the 30 largest MSAs, it has been suggested that we treat it as a top-30 market for cellular application purposes and use comparative selection procedures. We disagree. We have already decided not to retain comparative hearings for

for the filing of successive 30 MSA and NECMA groups at regular intervals to be announced subsequently. The Common Carrier Bureau will issue a Public Notice as soon as possible, listing the markets to be filed for in the next round, as well as a list of the remaining MSAs and NECMAs. After applications for all MSAs and NECMAs have been filed, we will accept on a date certain applications for all non-MSA and non-NECMA areas. After that, we will establish an opening date for the filing of applications for any remaining areas, whether located within or without an MSA or NECMA, which have not been applied for. For this last category, we will use regular notice and cut-off procedures instead of a date-certain filing deadline. This will enable applicants to file for any remaining areas at such time as they believe these areas can support cellular service. We recognize that there may be areas within the smaller MSAs or non-metropolitan areas, such as interstate highways, in which carriers may be anxious to implement service because they connect major metropolitan areas. While the filing procedures we adopt here may not result in expeditious service for such areas in some cases, we cannot make provisions for every possible situation and still maintain an orderly, expeditious processing system for the vast majority of the country.

56. *Non-Metropolitan Areas.* In our *Cellular Lottery Notice,* at para. 9, we requested comment on whether we should establish some geographic boundary as the outer limit of an applicant's CGSA for non-MSA and non-NECMA areas. These outer boundaries would serve the same purpose as MSA and NECMA boundaries in metropolitan areas by establishing an outer limit to an applicant's service area. We noted that without outer boundaries, applications for non-MSA and non-NECMA areas could have radically different CGSAs and that it might be difficult to determine when applications are mutually exclusive. The establishment of outer boundaries for these otherwise undefined areas would provide a basis for determining when applications for such areas are mutually exclusive for cellular lottery purposes.[84] We proposed the use of entire states or alternatively Basic Trading Areas (BTAs) as defined in Rand McNally's *Commercial Atlas and Marketing Guide* as outer limits on a non-MSA, non-NECMA CGSA and solicited comment on these and other

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areas which are alleged to have special or unique characteristics, see para. 28, *supra,* and the mere fact that San Juan is now classified as one of the most populous MSAs does not of itself provide a persuasive rationale for retaining them for San Juan. On the contrary, a lottery should enable cellular service to be implemented in San Juan more quickly than it would be through the comparative process—a significant public interest consideration since, as a highly populated area, it likely has a pressing demand for cellular service. We will accept applications for San Juan on July 16, 1984.

[84] For communities within an MSA or NECMA, there is no question as to which applications are mutually exclusive because the MSA or NECMA boundary provides the outer limit of each applicant's CGSA.

alternative definitions and on the threshold question of whether such outer boundaries are necessary at all.

57. We received comments on this issue from a cross-section of interested parties. More commenters urge that we not establish outer boundaries for non-MSA, non-NECMA areas than support any one definition. These commenters contend that the diverse physical, population and other characteristics of non-metropolitan areas make establishment of a single national standard for defining non-MSA, non-NECMA areas impossible; that all proposed boundaries represent artificial constraints on cellular design that will unnecessarily limit service and cause economic inefficiency; and that the viability of cellular service in rural, less populated areas is dependent upon the applicant's freedom to design its service area in response to local demand and market characteristics. State boundaries and Basic Trading Areas are criticized as too large, especially in the West, to reduce effectively the incidence of mutually exclusive applications;[85] as posing artificial barriers to natural interstate markets; and, after excluding MSA and NECMA areas within them, as not capable of supporting viable cellular systems.[86] Single and multi-county limits are also criticized as arbitrarily dividing natural cellular markets and potentially resulting in a "daisy chain" of mutually exclusive applications throughout large parts of the country.[87]

58. On the other hand, a few commenters support BTAs, stating that BTAs define areas that should be served by a single cellular licensee because they generally follow county boundaries and track existing patterns of business and commerce, sales, newspaper circulation, highways and transportation.[88] A number of commenters also support the use of county or multi-county boundaries, stating that they are large enough

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[85] This results from the fact that an individual state may contain multiple diverse mobile markets resulting in all applications within the state boundary being considered mutually exclusive.

[86] These remaining areas would in many cases be sparsely populated, non-contiguous counties or groups of counties that could not support cellular service or would be unattractive from a marketing and/or operational standpoint.

[87] Western Union suggests that defining each remaining county not in an MSA as a unique cellular area would prevent the creation of a "daisy-chain" series of mutually exclusive filings. We decline to adopt this approach because, as the carrier itself recognizes, it would result in "thousands of separate markets" many of which might never be included in a cellular system.

[88] MRTS also proposes a list of 150 non-MSA, non-NECMA areas based on its own analysis of logical trading areas and expected high cellular usage. It suggests that we adopt this list of "Significant Nonmetropolitan Areas" for cellular application purposes. Although we find MRTS proposal to be a commendable effort to establish logical boundaries for non-MSA areas, we have no way to test whether these groups better follow natural markets and expected cellular demand than any other geographic boundary. Therefore, we will decline to adopt MRTS' proposal for the same reasons that we are not adopting any outer boundaries, as discussed in para. 59, *infra*.

to cover natural markets without needlessly multiplying the incidence of mutually exclusive applications,[89] and would coordinate well with systems based on MSA and NECMA boundaries.[90]

59. After careful examination of the comments on this issue, we are convinced that the public interest would not be served by establishing strict geographical limits on the CGSAs of cellular applicants for non-MSA and non-NECMA areas. Our primary purpose in proposing such boundaries was administrative: to simplify our determination of mutually exclusive applications and thus expedite the licensing of cellular service. However, the weight of the comments suggests that the proposed boundaries would not necessarily reduce the incidence of mutually exclusive applications. More important, every proposed boundary would to at last some extent be arbitrary, and would restrict the ability of cellular system designers to propose service to natural markets and to respond to local market characteristics. The lower population densities and rural character of the non-metropolitan areas makes the design of viable cellular systems more difficult than in more populated areas. The imposition of CGSA boundaries would artificially restrict the ability of cellular applicants to identify local demand, growth potential and marketing receptivity and to design their systems accordingly. Under these circumstances, we find that the public interest will be best served by imposing minimal restrictions on the freedom of applicants to design systems to meet market demand for cellular service in non-metropolitan areas.

60. While we have concluded that maximum system design flexibility in non-metropolitan areas is in the public interest, we also conclude that some maximum limit on the overall size of an applicant's CGSA is necessary to discourage abusive filings, limit to some extent the number of mutually exclusive filings and reduce disparities in CGSA size. We will limit the total size of the CGSA proposed in a single application in non-

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[89] Western Union suggests that where applicants propose different but overlapping systems, each applicant receive one chance in the lottery for each county it proposes to serve with the entire market area being awarded to the winner regardless of how many counties it actually proposed to serve. We reject this approach because it would defeat our intention that applicants define their own service area and force them in some cases to provide service in areas for which they did not intend even to apply.

[90] Other proposed outer boundaries include "Economic Development Areas", as defined by the Economic Development Administration, and "Areas of Dominant Influence", a measurement of television broadcasting markets used by the *Broadcasting/Cablecasting Yearbook.* These proposals are supported by only a few parties and subject to the same arguments against adopting boundaries expressed against states, BTAs and counties.

MSA, non-NECMA areas to 2,000 square miles.[91] This is the approximate average size of the 318 MSAs existing in 1980. Establishing this maximum CGSA size will help achieve the administrative ends we desire while preserving system design flexibility.[92] We conclude that a square mileage limitation is a more reasonable method of achieving our administrative objectives than that which we proposed in the *Notice* and that it will not hinder the ability of cellular applicants to design viable systems in non-metropolitan areas.

61. Upon screening all applications for non-MSA, non-NECMA areas, our staff will identify those applications that are mutually exclusive. Generally, we will consider applications to be mutually exclusive if their CGSAs overlap at any point.[93] However, our staff will retain the flexibility to make expert judgments in order to avoid endless "daisy chains" and to facilitate the licensing process. For example, because it has been our policy to require adjacent operators to coordinate frequency use,[94] the staff may be able to disregard minor overlaps, or even some fairly significant overlaps, in determining whether two applicants are mutually exclusive. The staff must also retain flexibility to group applicants for lottery purposes to break the "daisy chain" at some logical point.[95] Furthermore, we will afford applicants in non-MSA areas the opportunity to amend their applications under Section 22.23(g)(2) of the rules[96] or to enter into settlements before the lottery is actually conducted.

62. We recognize that the process set forth above could result in applicants with different but mutually exclusive CGSAs being placed in

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[91] Of course, an applicant is free to design any size system up to the 2,000 square mile limit. In addition, to facilitate orderly and expeditious processing, we will require each non-MSA, non-NECMA applicant to list on the cover of its application the major cities within its proposed CGSA.

[92] This approach is similar to that suggested by Centel in proposing that the CGSA in non-MSA areas include area in no more than four counties, all of which must be contiguous. We believe the approach we adopt here is more adaptable to the diverse geography of non-MSA areas and will better serve our goal of preserving applicant design flexibility.

[93] Roseville Telephone Company suggests that cellular systems would have enough excess capacity in these rural areas to coordinate frequency use and avoid intersystem interference even if systems experiencing up to 25 percent geographic overlap are not considered mutually exclusive. While this view may have some merit, such a standard would be difficult to measure and would engender disagreement and administrative complexity in close cases.

[94] We are amending our pre-application frequency coordination requirements in light of our adoption of lottery selection procedures. See para. 84, *infra*.

[95] The applicants will be apprised of any staff action and will have an opportunity to comment if they are aggrieved by the result.

[96] This section enables applicants to file major amendments to remove frequency conflicts as long as they do not create new conflicts. In the cellular context, an applicant might delete or relocate a transmitter (i.e., alter its CGSA) to avoid mutual exclusivity.

the same lottery and, for example, the applicant proposing to serve the smallest area being randomly selected. This result would not contravene the public interest because our rules and procedures assure that the unlicensed area will ultimately be served. If there is a need for service, an applicant could apply to serve any such unlicensed area in the final "open-ended" application phase for previously unlicensed or unapplied for areas which should open approximately three months after the filing of applications for non-MSA, non-NECMA areas. Moreover, as noted above, we will continue to encourage these applicants to voluntarily eliminate their coverage conflicts or to enter into complete settlements to prevent such situations. In short, any temporary inequities can be addressed and these occasional dislocations do not outweigh the benefits of expeditious resolution of mutually exclusive applications for most non-MSA, non-NECMA markets.

63. *Basic Service Qualifying Standards.* In the *Cellular Lottery Notice,* at para. 11, we proposed adopting basic service qualifications standards for all cellular applicants for markets beyond the top 90. We proposed to require each applicant for the remaining MSAs or NECMAs to serve at least 75% of the population of the MSA or NECMA area. In non-MSA, non-NECMA areas, we suggested that applicants be required to serve all incorporated areas of 25,000 or more persons or to provide coverage of all four-lane or larger highways connecting MSAs. We tentatively concluded that these standards would be necessary to avoid the filing of superficial cellular proposals by applicants eager to obtain a "lottery ticket". Accordingly, we solicited comment on whether these or other additional basic qualifications are necessary to ensure that lottery entrants are technically and financially qualified to operate cellular systems.[97]

64. Our proposal to adopt additional basic qualifications standards received wide support. For example, TDS, the Carolinas RCCs, United Cellular Network and Amcell argue that adoption of basic qualifying standards would be necessary to screen out marginal, frivolous or defective applications, and to prevent our being inundated with applications proposing wholly inadequate coverage and capacity to meet present and future service needs. As to the standards themselves, the commenters differ significantly on the specific standards that should be adopted. Many commenters support our proposal that applicants for the below-90 MSAs or NECMAs be required to serve 75% of the population of the MSA or NECMA applied for. There was also substantial support for more stringent or comprehensive coverage standards. Metro Mobile, Maxcell

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[97] It should be emphasized that, relative to all other common carrier services, the basic qualifications for cellular applicants are already quite high. *See* 47 C.F.R. §§ 22.913, 22.917.

Telecommunications, and TDS, among others, recommend that we require applicants to serve 85% to 95% of the population of the MSA. Some commenters also propose requiring service to all major highways, universities, significant industrial and commercial areas, military bases and significant population centers. Other proposed standards include: requiring applicants to demonstrate the ability of their proposed systems to meet a grade of service standard; requiring applicants to conduct a unique demand study for each market applied for and to set forth in their applications how the study was used in developing their proposals; requiring interference-free operation within an applicant's initial system; and requiring a five-year expansion plan. MCI approaches the subject somewhat differently, generally opposing these kind of standards and proposing instead that we require a substantially stricter demonstration of financial qualifications by applicants for the below-90 markets combined with strict enforcement of an 18-month construction period.[98]

65. We also received comments from a group of carriers disagreeing with our tentative conclusions and opposing the adoption of additional basic qualifications standards.[99] The opposition commenters generally assert that standards effective in preventing superficial applications cannot be developed, given the complexity of cellular technology, without reducing or eliminating system design flexibility. A few also criticize our proposals as unnecessary and/or too stringent given the population and demand characteristics of smaller markets. For example, Cellnet Partners comments that tougher basic qualifications will only complicate the licensing process this proceeding is intended to streamline.[100] Metro Mobile believes that cellular applicants must be encouraged to tailor their proposals to specific market characteristics and that the adoption of uniform eligibility standards would discourage market-specific cellular design and encourage generic cellular designs.[101] American Mobilphone

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[98] MCI proposes that we strictly enforce Section 22.917 of our rules and require each applicant to demonstrate its ability to finance the construction and operation of a cellular system in every market in which it seeks a license.

[99] Some commenters split on this issue, supporting basic qualifications standards for MSA/NECMAs, while opposing them for non-MSA/non-NECMA areas.

[100] However, Cellnet Partners supports a 75% population coverage standard for both MSA/NECMA and non-MSA/non-NECMA markets, but suggests that it be a presumptive guideline with lesser coverage allowed if justified for a particular market. It also supports requiring applicants to demonstrate that they are proposing a demand-based cellular system as a means of preventing "boilerplate" applications.

[101] Metro Mobile cites the difficulty of developing standards to ensure high quality service as supporting its belief that lottery procedures for selecting cellular applicants are not in the public interest. Although it opposes the adoption of standards, it offers a list of comprehensive standards it would support in the event we elect to adopt standards. These include a 90% population coverage standard for MSAs and NECMAs as well as highway coverage, adoption of our proposed basic qualification standards for non-MSA,

comments that our proposed standards will not guarantee selection of the most qualified cellular applicants because they focus primarily on population while ignoring other indicia of system quality. The Regional Cellular Companies oppose the 75% coverage requirement on the basis that population is too dispersed in the below-90 markets for such coverage to be economic.[102]

66. The Justice Department also discounts the need for basic qualifications standards to deter the filing of speculative applications. It contends that the lottery selection process itself provides this deterrent in that an unqualified lottery selectee would not survive post-lottery review; since an insincere applicant would have no reasonable expectation of actually being licensed, it would not choose to incur the expense of applying. Therefore, the Justice Department concludes that additional qualifying standards are unnecessary and would offer no additional protection against poor applications.

67. We have decided to adopt with a slight modification the additional basic qualifying standard proposed in the *Cellular Lottery Notice* for applications for remaining MSAs and NECMAs. We will require applicants to define their CGSAs to include at least 75% of the population *or* 75% of the area of the MSA or NECMA for which they are filing. We will allow applicants to base their 75% coverage on either population or geographic area, rather than population only, to provide them additional flexibility to design systems based on local demand characteristics. For example, a population-only requirement could force applicants in some MSAs to propose disproportionate residential coverage to the detriment of primary highways, commercial or other business areas. Similarly, an area-only requirement could force coverage of sparsely populated or lightly travelled areas. The modified standard should avoid these dislocations by allowing an applicant to meet the threshold coverage standard by reference to either population or geographic area, whichever better relates to local demand characteristics.[103] Of course, we will continue to require each applicant to demonstrate that the combined 39 dBu contours

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non-NECMAs, and a variety of technical standards relating to system design, frequency, service, interference and system expansion. Metro Mobile's proposed qualifying standards are obviously intended to militate against lottery by suggesting that a complex set of rules would be necessary to ensure the selection of competent licensees. However, we believe the strict post-lottery screening process we are adopting here will assure the licensing of competent providers equally well with less administrative cost, complexity and delay.

[102] The Regional Cellular Companies also propose certain other qualifying standards for wireline carriers. In addition, NewVector filed a separate reply comment supporting the 75% coverage proposal for MSAs and suggesting stricter financial requirements, requiring demand studies and requiring that applicants demonstrate site availability.

[103] We will consider properly supported requests for waivers of the minimum coverage requirement in recognition of the fact that exceptional circumstances are bound to exist.

of all base stations will provide coverage of at least 75% of the area of its CGSA, as specified by Section 22.903 of the rules. This will help ensure that applicants for the below-90 MSAs and NECMAs propose generally comparable levels of system coverage, capacity and service quality in order to be eligible for inclusion in a lottery. It should also reduce the possibility of our being inundated with applications proposing wholly inadequate coverage and capacity to meet the present and future needs of a metropolitan area.

68. We will not adopt the additional qualifying standards we proposed in the *Notice* for non-MSA, non-NECMA areas. Our evaluation of the comments on this issue persuades us that we should allow cellular entrepreneurs in non-MSA/non-NECMA areas maximum flexibility in cellular design and coverage to cope with the particular problems presented in non-urban areas. Non-metropolitan areas, lacking population and industrial concentration, have different demand and marketing needs and characteristics than metropolitan areas. Because an MSA defines an integrated population, business and economic center, it makes sense to impose a population or area-based coverage requirement to ensure that each lottery entrant proposes generally comparable service within the MSA. Such standards are essentially irrelevant for non-MSA areas since an applicant will define its CGSA specifically to include areas that have a need for service and should provide such service without regulatory prescription. We will, however, continue to require that applicants for non-MSA/non-NECMA areas demonstrate 39 dBu coverage to 75% of the total area of the CGSA as specified in Section 22.903. This establishes a general level of system coverage that should help preclude the licensing of an inferior proposal and result in service coverage comparable to that found in metropolitan areas.

69. The limited basic qualifying standards for below-90 cellular applicants we adopt today reflect our conclusion that we should adopt such requirements only to the extent necessary to establish a general level of consistency and system capability. We agree with the commenters who stated that it is nearly impossible to establish standards that would prevent abusive applications without severely reducing the ability of cellular applicants to design creative, market-based solutions for varying market characteristics. We have placed a high regard on allowing cellular applicants to design their systems in response to market forces and have attempted to avoid adopting standards that would unnecessarily restrict that flexibility. Thus we have not adopted additional basic service qualification standards, such as requiring coverage of every major highway, university and industrial area, that would prevent cellular

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Should our staff determine that a waiver is not justified, the applicant will be given an opportunity to file a conforming amendment.

providers from making these decisions based on market forces. Establishing these kinds of standards would create a new regulatory threshold ultimately requiring interpretation on a case-by-case basis through consideration of Petitions to Deny and responsive pleadings. The delay and expense this would entail would undercut the benefits of lottery selection.

70. We have not adopted a grade of service standard because it would be difficult to administer and unlikely to ensure a consistent level of service quality or effectively deter frivolous applications. We recognize that a grade of service standard is superficially appealing since it would appear to ensure that each lottery entrant designs its system to offer a level of service quality consistent with the promise and potential of cellular technology. However, compliance with a specified grade of service would not ensure comparable system quality among applicants since calculation of grade of service is based on a number of variables which are not susceptible of easy validation. For example, if mutually exclusive applicants submit substantially different demand projections, we would be unable to verify their compliance with a grade of service standard without first determining the most accurate estimate of demand. This would entail analysis of each applicant's need survey and is precisely the type of lengthy, speculative comparative evaluation that lottery selection is intended to avoid. In addition, there is no single universally accepted methodology for calculating grade of service in cellular and no generally accepted "busy hour" blocking rate for mobile services for applicants to rely on in calculating their projected grade of service. Moreover, such a standard is unnecessary since applicants in markets 1-90 (where the Commission did not specify a grade of service) have proposed system grades of service comparable to that of landline systems (.02-.05 blocking rates), and we have no reason to believe the industry will not continue to adhere to this general standard. For these reasons, we conclude that adoption of a grade of service standard will not ensure higher-quality applications.

71. Finally, it bears repeating that the basic qualification requirements we now have in place are significant barriers to frivolous applications. Applicants must show financial ability (Section 22.917) and a variety of technical qualifications (Section 22.913) before their applications will be accepted for filing. All of theses basic requirements remain in place. We are confident that they adequately ensure that the public will receive high-quality cellular service regardless of the method of selection. In addition, we recognize that under lottery selection procedures, some applicants may file mass-marketed, non-exclusive cellular applications to gain inexpensive entry into the lotteries for the below-90 cellular markets. While such applications are not *per se* unacceptable, we caution prospec-

tive applicants that mere "lottery tickets" will not be accepted for filing. To be acceptable, a cellular application should clearly demonstrate the applicant's technical and financial qualifications and demonstrate why grant of a cellular license to this particular applicant would serve the public interest. If a significant and material issue exists regarding the sincerity of a tentative selectee's commitment or ability to provide high quality cellular service as a Commission licensee or if there are other reasons to question whether the public interest would be served by a grant, we have authority to designate the application for evidentiary hearing to resolve such issues.

72. *Petitions to Deny.* In the *Cellular Lottery Notice*, at para. 8, we envisioned that petitions to deny cellular applications would be filed prior to lottery.[104] (Petitions in markets 31-90 have already been filed.) The commenters addressing this issue urge almost unanimously that in a lottery regime petitions to deny against cellular applicants should be filed after the lottery is conducted, and only against the tentative selectee, to avoid the need for applicants to prepare and for our staff to catalogue and store great numbers of petitions and oppositions that will never be evaluated. The commenters state that the existing procedures would impose an unnecessary burden on both applicants and the Commission because petitions against all but the tentative selectee would ultimately become moot in most cases.[105]

73. We agree with the commenters that a post-lottery petitioning process similar to the process prescribed for mass media services in Section 73.3584 of our rules will best serve the public interest. We will allow petitions to deny only after the lottery is held for a market and only against the tentative selectee. Such a procedure will spare most applicants the wasted time, effort and expense of preparing and filing petitions against all of the other competing applicants when only a small portion of those petitions will ever be evaluated by the Commission. Accordingly, we will amend our cellular rules to provide that petitions to deny applications for markets beyond the top-90 will be due 30 days after the Public Notice which announces the tentative selectee is issued. A consolidated reply to these petitions by the tentative selectee will be due within 30 days.[106] This

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[104] The lottery rules that apply generally to the Public Mobile Service provide for the filing of petitions to deny at the public notice stage, prior to lottery. *See* Second Lottery Report and Order, *supra* note 2 at para. 12.

[105] Maxcell estimates that petitions against below-90 applicants could cost as much as $5,000 to $10,000 to prepare per petition.

[106] MRTS suggests that we should also allow post-lottery petitions for markets 31-90 because the already-filed petitions to deny against applicants in those markets were filed in contemplation of comparative rather than lottery selection and that this change in selection procedure warrants an additional opportunity to be heard. We agree with MRTS' analysis. In addition, we believe supplementary petitions are justified in view of

procedure promotes more effective and efficient use of both the public's and the staff's resources, particularly given the large number of mutually exclusive applications expected in many post-90 markets. In addition, it enables applicants to focus their attention upon the tentative selectee and subject its application to critical analysis.[107] This serves the public interest by helping to ensure that only tentative selectees who are technically and financially qualified to provide high quality cellular service will be licensed.[108] It also helps to simplify the licensing process since only a few top-ranked applicants would be likely to file petitions against the tentative selectee.[109]

VI. Transfer and Ownership Issues

A. Comments.

74. In the *Notice, supra* note 1, at para. 22, we tentatively decided to adopt the same relaxed anti-trafficking rules as those recently adopted for

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our previous policy, which deferred many issues to the comparative process, rather than resolving them at the petition stage. *See, e.g.*, Advanced Mobile Phone Service, Inc. (Buffalo Order), 52 RR 2d 1255 (Com. Car. Bur. 1982), at para. 25; LIN Cellular Communications Corporation (Los Angeles Nonwireline Order), 53 RR 2d 419 (Com. Car. Bur. 1983), at para. 5. Therefore, we will allow supplementary petitions against the tentative selectee under the procedures described here. *See also* para 81, *infra.*

[107] Section 309 of the Act requires that petitions to deny contain specific allegations of fact sufficient to raise a substantial and material question that grant of the petitioned application would be inconsistent with the public interest. We anticipate that the competitive interests of mutually exclusive applicants will ensure that petitions to deny subject the tentative selectee's application to critical and thoughtful review against the statutory standard and our cellular objectives. At the same time, we caution that only issues of a substantial and material nature should be raised. The public interest is not served when petitions mainly point out obvious clerical and typographical errors or raise minor insubstantial issues or legal arguments that are inconsistent with established Commission precedent. *See* Cellular Communications of Cincinnati, Inc., 53 RR 2d 827 (Com. Car. Bur. 1983).

[108] As explained in para. 81, *infra*, we will rank all applicants in the random selection process. This is consistent with the lottery procedure followed in other services. When we find it necessary to designate a tentative selectee's application for hearing, we will simultaneously solicit petitions to deny against the next-ranked tentative selectee and establish a procedural schedule for such petitions and a consolidated opposition.

[109] In the Second Lottery Report and Order, *supra* note 2, at para. 40, we concluded that it would economize the efforts of interested parties in the Low Power Television lotteries to defer the preparation and filing of petitions until after lottery in light of the sheer number of applications involved as well as the nature of the issues that could be raised. These same conditions are also present in the cellular service given the increasing number of applications expected and the diverse, substantive issues that may be raised in this new service. For the other Public Mobile Services, where there are fewer mutually exclusive applicants and fewer concerns about basic qualifications, we continue to believe that existing procedures are the most efficient.

the Mass Media and Domestic Fixed Radio Services.[110] In the context of a cellular lottery we declined to propose more strict anti-trafficking rules because we did not feel that there would be a problem of insincere cellular applications. In a related matter, we solicited comment on whether we should limit the number of applications in each market in which a carrier can hold minority interests, the percentage of such minority interests, and whether these should be a limit on the number of applications any one carrier can submit. *Id.*, at n. 31.

75. There was a general consensus in favor of the Commission's anti-trafficking proposal. Most commenters agree that the sale of construction permits and certain licenses should be permitted only if it is demonstrated that the transferor will receive no profit. The commenters diverge on whether the licenses should be freely transferable after one, two, or three years of operation. A few commenters argue that strict anti-trafficking rules are needed to discourage speculation. In addition, several clarifications were suggested. Commenters suggest that the Commission permit trading (as opposed to sale) of construction permits. They also request confirmation that changes of ownership not requiring prior Commission approval are permitted at all times.

76. With respect to the number of applications a party may file, the comments agree that an applicant should be limited to one cellular application per market in which it has a majority interest. They disagree, however, on the level of minority interest to be allowed. American Teleservices and others suggest there should be no limit on minority interests for entities filing in the same market, while others recommend a one, three of five percent limit on minority interests. Other commenters argue that an applicant should not be permitted to have more than one interest, even a second minority interest, in applications for the same market in order to discourage speculation. Finally, the commenters completely diverge on whether to restrict the number of markets in which an entity may apply. The majority of the commenters argue that there should be no limit. Other commenters propose a five, ten or twenty-five application limit. One group of commenters recommends that we should restrict the number of licenses awarded to a carrier, not the number of applications filed; they suggest a limit of five licenses in a region (as defined by the U.S. Department of Commerce). Several commenters

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[110] Amendment of Section 73.3597 of the Commission's Rules (Applications for Voluntary Assignments or Transfers of Control), BC Docket No. 81-87, 47 Fed. Reg. 55924, released December 2, 1982; Multipoint Distribution Service, General Docket No. 80-112 and CC Docket No. 80-116, 48 Fed. Reg. 33873, released July 15, 1983. In these proceedings we relaxed the anti-trafficking rules to permit free transferability of most licenses (i.e., stations constructed), but retained a limitation on the transferability of licenses awarded after comparative hearings and on the transferability of construction permits.

contend that no restrictions should be placed on applicants or licensees; instead they suggest a restriction on the number of applications for the same market in which an engineering, consulting or law firm can participate. They point to numerous advertisements for "turn-key" systems or "non exclusive" cellular systems, arguing that such conduct must be stopped to prevent a flood of applications.

B. Discussion.

77. We conclude that the adoption of the relaxed anti-trafficking rules for cellular service similar to those adopted for applications awarded by lottery in conventional mobile services[111] and the Low Power Television Service (LPTV) is in the public interest.[112] The sale of a construction permit, regardless whether it is awarded by comparative hearing or lottery, or a license awarded as a result of the expedited hearing procedures used in the top-30 markets for a station operated less than a year, will be permitted only after a showing that the transferor is not speculating in cellular licenses.[113] However, cellular licenses awarded by lottery will be transferable after construction without regard to a minimum license holding period. This policy, which is consistent with the general policy for licenses awarded by lottery in the conventional mobile services, best balances the public interest in efficient use of the spectrum through free transferability of licenses with a deterrent for insincere applicants to speculate in unbuilt or newly built facilities.

78. The issue of minority ownership shares in more than one application in a market is difficult to resolve in a totally satisfactory manner. In a closely held company or a partnership, anything less than 50 percent ownership deprives the holder of effective control, absent special circumstances. On the other hand, in a widely held public company, as little as 10 percent ownership may vest control. In many other cases, ownership shares are passive, and even very large holdings do not carry the right to vote or otherwise influence the company's decisions. In the cellular service, there is no single point below 50 percent ownership at which a

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[111] Revision and Update of Part 22, *supra* note 82, at para. 107 and n. 33.

[112] Second Lottery Report and Order, *supra* note 2, at para. 56. In LPTV, the one year holding period applies to licenses awarded by comparative hearing or by lottery when the licensee was the beneficiary of a diversity or minority preference.

[113] The burden of proof in these circumstances will be on the transferor. With respect to trading, we will allow a party with a full or partial ownership interest in the construction permit for a cellular system in one market to trade an ownership interest in the construction permit for another market. This will facilitate the orderly construction and development of cellular systems by allowing the consolidation of ownership and management into an effective entrepreneurial structure, while continuing to discourage insincere applicants. Consequently, cash may be an element in this transaction only when the parties demonstrate that the amount equalizes the value of the authorization to be traded.

presumption of control clearly arises; all evaluations would have to be made on an *ad hoc* basis.[114]

79. We must balance our desire to give applicants wide latitude in forming business relationships against our interest in maintaining consistency and simplicity in the administration of our cellular lottery. We cannot simply allow any amount of minority ownership up to 50 percent when a far smaller share will, in many cases, vest effective control. We would only be inviting endless petitions to deny and other forms of protest that a party was manipulating the lottery process. In establishing lottery procedures for the Low Power Television Service, we took a very strict approach to ownership of competing applications, barring directly mutually exclusive applications "by any applicant in which any party common to both applications is an officer, director, or has any interest, direct or indirect (footnote omitted)".[115] We have seen no persuasive reasons why we should adopt a different policy for cellular applications for markets beyond the top-90.[116] The advantage of precluding participation in more than one application per market is that we will avoid numerous protracted challenges to selectees and litigation of that difficult issue after holding lotteries.[117] Such challenges could even result in further lottery procedures because several related applications may have been incorrectly included in the lottery. On the other hand, there is no evidence that allowing the ownership of a minority share in multiple applications would advance the public interest. Accordingly, we will adopt a rule similar to that applicable to Low Power Television applications, *i.e.*, no party may have an ownership interest in more than one application for the same MSA market or have a mutually exclusive application for the same non-MSA/non-NECMA area, except that interests of less than 1% will not be considered.

80. Finally, we decline to adopt any restrictions on the maximum number of markets in which an applicant can apply or an entity may be licensed. Our rules do not presently have any restrictions on multiple ownership; in fact, we explicitly declined to adopt such restrictions in the *Report and Order*, 86 FCC 2d at 487; *Reconsideration Order*, 89 FCC 2d at 68. The fact that we will award licenses by lottery rather than comparative hearing does not mandate reconsideration of our previous decision. To be sure, the companies with greater resources will be able to

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[114] *Cf.* American Radio-Telephone Service, Inc. Mimeo No. 812, released November 16, 1982, at para. 5 (Com. Car. Bur.), *aff'd.*, 93 FCC 2d 438 (1983).

[115] Second Lottery Report and Order, *supra* note 2, at para. 54. *See also* 47 C.F.R. § 73.3521.

[116] We will not retroactively impose this restriction on minority ownership for applications for markets 31-90 already on file because of the potential unfairness.

[117] Determining whether a minority share owner has power to exercise control, either positive or negative, is very difficult and time-consuming.

file more applications, thereby increasing the chances that they will receive some licenses. The public interest does not require that we equalize the lottery odds between large and small prospective entrants; it only requires that everyone have an opportunity to participate and that the selectees, whether three different companies or three hundred, be financially and technically qualified to receive licenses.[118]

VII. Lottery Procedures

81. *Markets 31-90.* Lotteries for cellular applications in Rounds Two and Three will follow the same procedures currently set forth in Parts 1 and 22 of our rules. Approximately 30 days after the publication of this order, we will issue a Public Notice announcing the date and time of the lottery, and identifying the markets to be considered and the participants to the lottery for each market. Applicants who wish to settle will be required to notify us at least two business days before the date of the lottery.[119] The lottery will be held under the direction of the Office of the Managing Director. For each market, the random selection will choose a tentative selectee and then repeat the random selection process for all applicants, so that in the event that the tentative selectee's application is denied, the other applicants will be ranked in order as alternative selectees. After the lottery is conducted, we will issue a Public Notice announcing the tentative selectee. We will give parties 30 days to file petitions to deny (or supplementary petitions in the event petitions were filed initially) the first tentative selectee. The tentative selectee will have 30 days to file a consolidated reply. Shortly thereafter, we will review the petitions filed against this selectee. If we are able to determine that the tentative selectee is qualified, we will grant the application. If, however, a substantial and material question of fact is raised, the application will be designated for hearing in accordance with Section 1.823 of the Rules. If that selectee is found unqualified, we will review the application and the petitions then filed against the next-ranked selectee to determine whether that applicant is qualified. This process will repeated until we grant one of the applicants an authorization.

82. *Markets beyond the top-90.* The cellular lottery for the remaining markets will be similar to the procedures described above, with a few modifications. Prior to conducting the lottery, applications will be prescreened to determine that they are acceptable for filing under our

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[118] We decline imposing a restriction on the number of applications for the same market in which an engineering, consulting or law firm can participate. This suggestion, relevant to professional ethics and conflicts of interest, is beyond the scope of the rulemaking.

[119] *See, e.g.,* Lottery Notice, Mimeo No. 1646, released January 3, 1984. It is our intention, where possible, in a particular market to process timely filed settlements prior to any grant awarded by lottery procedures.

cellular rules.[120] After pre-screening, we will issue a Public Notice identifying the mutually exclusive applications and setting a date for the lottery. Finally, as explained in para. 74, *supra*, petitions to deny applications for these markets will not be filed until after the tentative selectee is announced, and will be accepted initially against the first selectee only.

83. The considerations of administrative efficiency that support the filing of petitions to deny against only the tentative selectee, also support strictly limiting the filing of amendments to applications for the below-90 markets under lottery selection procedures. The numerous amendments to applications filed in the top-90 markets have severely disrupted our staff's ability to process cellular applications in an orderly, expeditious manner and have required us to limit additional amendments to those applications.[121] It would make little sense under lottery selection procedures to burden our staff with the screening and processing of even minor amendments to applications that will not be selected. Cellular applicants should by this time be able to file complete and accurate applications, particularly in light of the fact that absent comparative consideration, applications for the below-90 markets should be somewhat simpler. Accordingly, we will not accept amendments to applications for the below-90 markets prior to lottery except for amendments reflecting settlements and, in the case of non-MSA/non-NECMA markets, amendments that eliminate frequency conflicts without creating new conflicts. Amendments reflecting settlements are necessary to determine the proper number of chances for the surviving applicant, while amendments removing frequency conflicts may eliminate mutual exclusivity and obviate the need for a lottery in some markets. After lottery, the tentative selectee may file minor amendments; however we will not allow major amendments, as defined in Section 22.23(c), to cellular applications in markets beyond the top 90 except that major amendments encompassed by Section 22.23(g) may be filed by the tentative selectee.[122] In addition, any information required by Section 1.65 must be filed within 14 days of the Public Notice announcing the tentative selectee.[123] This will give

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[120] Applications for markets 31-90 were pre-screened in anticipation for comparative hearings. It is not necessary to prescreen them again before their submission to the lottery.

[121] See our Order in CC Docket 79-318, FCC 82-409, released September 3, 1982, and our Memorandum Opinion and Order in CC Docket 79-318, 48 Fed. Reg. 33217, released April 22, 1982.

[122] We do not allow major amendments to cellular applications in the top-90 markets prior to designation for hearing. See Section 22.918(a) of the Rules.

[123] The rules governing amendments to cellular applications designated for hearing before an Administrative Law Judge are unchanged.

prospective petitioners notice of any significant changes prior to the filing of petitions to deny.

84. *Frequency Coordination.* Section 22.902(d) of the rules requires cellular applicants to coordinate their proposed frequency usage with adjacent existing users or pending applicants. By Public Notice dated November 1, 1982, Mimeo 567, the Common Carrier Bureau recognized that many applicants for markets 31-90 would find several unresolved applications for adjacent markets, each having vastly different frequency use plans and that requiring coordination with all such earlier-filed applications would be unnecessarily time-consuming and burdensome. It announced that applicants for markets 31-90 need not engage in pre-application coordination where there is more than one application for the same frequency block in a neighboring market. The same considerations will also exist in the below-90 markets and may become even more prevalent given the numerous applications expected. In addition, our adoption of lottery selection procedures makes it even more unrealistic to require existing licensees, much less pending applicants, to review and coordinate frequency usage with numerous below-90 filings that will ultimately not be selected.

85. We emphasize the importance of cellular licensees coordinating this actual frequency usage with existing users and new licensees in neighboring markets prior to commencing service. Frequency coordination enables cellular licensees to make maximum use of the available spectrum and preserves the ability of systems to expand to meet developing market demand. However, in light of the practical considerations referred to above, the public interest will be better served, and our goals of intersystem frequency coordination satisfied, by amending section 22.902(d) to require in the below-90 markets that only cellular permittees and licensees need engage in formal coordination with existing licensees, tentative selectees and pending (non-mutually exclusive) applicants in neighboring markets. We will also require every applicant granted a license to comply with the frequency coordination requirements of our rules by cooperating fully with and making all reasonable efforts to resolve frequency conflicts with neighboring systems and to avoid blocking their growth. This approach will ensure that applicants recognize their frequency coordination responsibilities while taking into account the realities of the cellular application process.

VIII. Conclusion

86. We are now at a vital crossroads in implementing the delivery of cellular radio service to the public. There is a pressing need to bring the benefits of cellular service to the public as expeditiously as possible while at the same time ensuring that cellular systems provide a high-quality, nationwide mobile communications service. Because of the high potential

for cellular, we received a significantly higher number of applications than expected. In addition, the processing of cellular applications has required significantly more time than previously contemplated. Because of these factors, we are faced with the certainty of substantial delays unless we adopt new procedures to evaluate these mutually exclusive applications. These delays are inimical to the public interest and exacerbate the troublesome prospect of a wireline headstart undermining effective competition. We find, therefore, that the public interest will be significantly benefited by utilizing lotteries instead of comparative hearings to select from among mutually exclusive applicants. We are mindful of the adverse impact claims of those parties who have filed applications in anticipation of comparative hearings, when now we find it necessary to utilize a lottery. Nevertheless, we find that any inequity to individual applicants which may result from our adoption of a lottery at this time is outweighed by the significant benefits to the public that will result from expedition of the nationwide implementation of cellular service. Having made this decision, we can now proceed to screen carefully the qualifications of selectees and quickly act on cellular applications that are found to be in the public interest.

Regulatory Flexibility Act — Final Analysis

87. *Need for and Purpose of Rules.* This action will allow lotteries to be used instead of comparative hearings to choose among mutually exclusive cellular applicants. This action is expected to greatly reduce the delay, lower the cost and speed the process of granting licenses in mutually exclusive cases.

88. *Issues Raised by the Public in Response to the Initial Analysis.* None.

89. *Alternatives that would lessen impact.* We have considered alternative approaches to a lottery such as streamlining the comparative hearing or utilizing auctions. Streamlining the comparative process is insufficient to achieve our goal of expediting cellular service and is far more costly. We decline to use an auction because it is unclear whether we have the authority to hold an auction while the authority to conduct lotteries is explicit.

Ordering Clauses

90. Authority for this rulemaking is contained in Sections 1, 4(i) and (j), 303, 309, 403 of the Communications Act of 1934, as amended, and Section 553 of the Administrative Procedure Act.

91. Accordingly, IT IS ORDERED, that Parts 1 and 22 of the rules ARE AMENDED as specified in Appendix B. These amendments and other policies adopted in this order will become effective 30 days after the publication of this document in the Federal Register.

92. IT IS FURTHER ORDERED, that applications for markets 91-120 must be filed within the two-week period commencing July 2, 1984 and ending July 16, 1984. Further filing dates will be announced by Public Notice. The Common Carrier Bureau also will issue a Public Notice listing the markets to be filed in this round, as well as a list of the remaining markets.

93. IT IS FURTHER ORDERED, that the Requests for Leave to file informal comments filed by American Mobile Communications and all other parties filing late-filed comments ARE GRANTED.

94. IT IS FURTHER ORDERED, that the Petition for Reconsideration filed by Lincoln Telephone & Telegraph Company, *et al.*, of our *Order*, 48 Fed. Reg. 7383, released February 24, 1984, IS DISMISSED AS MOOT.

FEDERAL COMMUNICATIONS COMMISSION

WILLIAM J. TRICARICO, *Secretary*

*Appendix A-may be seen in FCC Dockets Branch, 1919 M Street, N. W., Washington, D.C. 20554.

Appendix B

47 C.F.R. is revised as follows:

Part I — Practice and Procedure

Subpart E — Complaints, Applications, Tariffs, and Reports Involving Common Carriers

1. In Part I, § 1.821 is amended by adding the words "or for frequencies in the Domestic Public Cellular Radio Telecommunications Service", to read as follows:

§ 1.821 Scope

Where action on applications is permitted by the Chief, Common Carrier Bureau, under delegated authority, the provisions of this section, and the provisions referenced herein, shall apply to applications for initial licenses for stations in the Public Land Mobile Service or for frequencies in the Domestic Public Cellular Radio Telecommunications Service.

2. Section 1.822 (a) is amended by adding at the end of the sentence the words "except as specified below:" and adding a new subsection (a)(1) to read as follows:

§ 1.822 Grants by Random Selection

(a) Applications in the common carrier services specified in § 1.821 "Scope" shall be filed, accepted or dismissed, placed on public notice, and subject to petitions to Deny according to the rules established for the specific service except as specified below:

(1) In the Cellular Service, Petitions to Deny may be filed only against the tentative lottery selectee within 30 days of the Public Notice announcing such tentative selection. A consolidated reply may be filed within 30 days of the due date for Petitions to Deny. No additional responsive pleadings will be accepted. If the tentative selectee is disqualified,

or its application designated for hearing, the Commission will allow Petitions to Deny against the next-ranked tentative selectee.

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Part 22 — Public Mobile Radio Services

Subpart B — Processing of Applications

3. Part 22 is amended by removing the words "Standard Metropolitan Statistical Area" or "SMSA" every time they appear in this Part and inserting in their place "Metropolitan Statistical Area" or "MSA".

4. In Part 22, § 22.33 is amended by revising existing text, renumbering this text (a) and adding a new subparagraph (b), to read as follows:

§ 22.33 Grants by Random Selection

(a) If a properly filed application for an initial license in the Public Land Mobile Service, or in the Domestic Public Cellular Radio Telecommunications Service for markets below the top-30 cellular modified Metropolitan Statistical Areas, is mutually exclusive with another such application, the applicants shall be included in the random selection process set forth in part I, § 1.821 *et seq.* No preferences shall be awarded. Renewal applications shall not be included in a random selection process.

(b) Cumulative chances for partial cellular settlements.

The joint enterprise resulting from a partial settlement among mutually exclusive cellular applicants, if entered into after the filing of individual applications by its members, will receive the cumulative number of lottery chances that the individual applicants would have had if no partial settlement had been reached.

Subpart K — Domestic Public Cellular Radio Telecommunications Service

5. Section 22.902 is amended by revising paragraphs (b) and (d) to read as follows:

§ 22.902 Frequencies

* * * * *

(b) For cellular systems the assignment of frequencies will be divided into two blocks. Assignments will be made from the frequencies listed for Cellular Systems A and B. Common carriers not also engaged in the business of affording public landline message telephone service will be assigned frequencies from Cellular System A, and common carriers also engaged directly or indirectly in the business of affording public landline message telephone service will be assigned frequencies from Cellular system B in those general areas in which they provide such landline service; except that, in the final cellular application phase for any initially unapplied for or unlicensed area, either within or without a Metropolitan Statistical Area (MSA) or New England County Metropolitan Area (NECMA), cellular applicant may apply for either frequency block and the applicant shall indicate in its application which it prefers to be assigned.

* * * * *

(d) Frequency coordination. (1) All permittees or licensees in the Domestic Public Cellular Radio Telecommunications Service shall coordinate proposed frequency usage with existing users in Cellular Geographic Service Areas within 75 miles of all base stations affected, and with tentative selectees and other non-mutually exclusive pending applicants whose facilities could affect or be affected by the new proposal in terms of intersystem frequency interference or restricted ultimate system capacity. This coordination requirement shall also apply to permissive changes (i.e. changes in frequency assignment not requiring prior Commission approval) within an authorized Cellular Geographic Service Area.

(2) In engineering a system or modification thereto, all applicants shall by appropriate studies and analyses select sites, transmitters, antennas and frequencies that will avoid intersystem interference with existing users in Cellular Geographic Service Areas within 75 miles of all base stations affected and with other applicants whose facilities could affect or be affected by the new proposals whenever there is only one applicant for each affected market.

(3) All applicants, permittees and licensees shall cooperate fully and make reasonable efforts to resolve technical problems and conflicts that may inhibit the most effective and efficient use of the radio spectrum; however, the party being coordinated with is not obligated to suggest changes or reengineer in cases involving conflicts. All permittees and licensees shall make every reasonable effort to avoid blocking the growth of other systems that are likely to need additional capacity in the foreseeable future.

(4) Where technical problems are resolved by an agreement or operating arrangement between the parties that would require special procedures to be taken to reduce the likelihood of intersystem interference or would result in a reduction of quality or capacity of either system, the new licensee or permittee shall notify the Commission. Upon making a permissive change, a licensee shall notify the Commission of its frequency usage and report on its coordination as required under this subsection.

* * * * *

6. Section 22.903(a) is revised to read as follows:

§ 22.903 Cellular System Service Areas

(a) The Cellular Geographic Service Area (CGSA) of a cellular system shall be defined by the applicant as the area intended to be served. No CGSA which includes area within a Metropolitan Statistical Area (MSA), or, in New England, a New England County Metropolitan Area (NECMA), as modified in subsection (e), below, may extend beyond the boundaries of the MSA or NECMA except where any such extensions are *de minimis* and do not include area within another central MSA or NECMA. For MSAs and NECMAs below the top 90, the boundaries of the CGSA must include at least 75% of either the land area or population of the MSA or NECMA. In non-MSA, non-NECMA areas, the total land area of the CGSA shall not exceed 2,000 square miles. The CGSA must be drawn on one or more U.S. Geological survey map(s) with a scale of 1:250,000. Within the CGSA the applicant must depict each base station site and its respective 39 dbu contour as determined by the methods described in paragraph (c) below. An applicant must demonstrate that the combined 39 dbu contours of all base stations will cover at least 75% of the total CGSA.

* * * * *

7. Section 22.913(a) is amended by adding new subsections (10) and (11):

§ 22.913 Content of Applications

(a) * * *

(10) An exhibit indicating the state and counties included in the applicant's CGSA for non-MSA, non-NECMA areas.

(11) Applications for non-MSA, non-NECMA areas shall include on their cover or initial page a list of all major cities within the proposed CGSA.

* * * *

8. Section 22.916 is amended by revising paragraphs (a) and (b) and adding paragraph (c) to read as follows:

§ 22.916 Evaluation of cellular applications

(a) Mutually exclusive applications for the top-30 cellular markets listed in Section 22.903(e) that are acceptable for filing and meet our basic qualifying issues shall be designated for a comparative hearing. Applications involving basic qualifying issues shall also be designated for hearing on those particular issues, on an expedited basis, as described in paragraph (b) of this section. The comparative hearing shall be conducted by an Administrative Law Judge named in the designation order or a subsequent order.

(b) Expedited hearings procedures for the top-30 cellular markets. The following procedures shall apply to hearings in the top-30 cellular markets in the Domestic Public Cellular Radio Telecommunications Service.

* * * * *

(c) Evaluation of cellular applications for markets below the top-30. Mutually exclusive cellular applications for markets below the top-30 shall be randomly selected according to the procedures set forth in § 22.33 and § 1.822 *et seq.*

9. Section 22.918 is amended by revising subparagraph (a), adding subparagraphs (b) and (c), deleting existing subparagraph (d) and redesignating the existing remaining subparagraphs to read as follows:

§ 22.918 Amendment of cellular applications.

(a) Top-90 markets. Minor and technical amendments and those required by § 1.65 of the rules, but no major amendments as defined in § 22.23(c), may be preferred within forty-five days of public notice of the filing of an application for the top-90 cellular modified Metropolitan Statistical Areas.

(b) Markets below the Top-90. Amendments for applications for below-90 cellular markets may not be filed prior to conduct of the lottery for the market applied for. The tentative selectee may file minor amendments, but no major amendments except for those listed in § 22.23(g). Information required by section 1.65 shall be filed within 14 days of publication of the Public Notice announcing the tentative selectee.

(c) Notwithstanding the general cellular amendment rules specified in paragraphs (a) and (b) above, the amendments described in (1) through (4) below may be filed as specified therein:

(1) Amendments to applications for non-MSA, non-NECMA areas which resolve frequency conflicts with other pending applications but do not create new or increased frequency conflicts may be filed at any time.

(2) Amendments in connection with full settlement agreements under § 22.29 of the rules, or partial settlements resulting in a merger of interests between two or more mutually exclusive parties may be filed at any time.

(3) Amendments requested by the Commission or the Administrative Law Judge may be filed at any time.

(4) After an application is designated for hearing, amendments may be filed for good cause upon leave of the presiding officer.

10. Part 22 is amended by adding a new § 22.920 to read as follows:

§ 22.920 Considerations involving transfer or assignment applications for cellular authorizations.

(a) The provisions of Section 22.40(b) of this Part shall apply to transfers or assignments of cellular authorizations except as provided in Section 22.920(b).

(b) This section does not apply to:

(1) The trading of an ownership interest in a construction permit for a cellular system in one market for a commensurate interest in another cellular market.

(2) Cellular licenses (*i.e.*, stations constructed) obtained by random selection.

11. Part 22 is amended by adding a new § 22.921 to read as follows:

§ 22.921 Ownership in mutually exclusive applications for cellular service for markets below the top-90.

No party may have an ownership interest, direct or indirect, in more than one application for the same MSA market or have a mutually exclusive application for the same non-MSA/non-NECMA area, except that interests of less then 1% will not be considered.

Statement of FCC Commissioner James H. Quello Dissenting in Part

In Re: Report and Order in the Cellular Lottery Rulemaking, CC Docket No. 83-1096

I concurred in the Notice of Proposed Rulemaking in this docket because I felt that the Commission should explore the use of this newly-acquired tool in all areas where our resources were being overtaxed. I was persuaded by assertions that there was very little difference among the applications and that no meaningful differences were likely to emerge from comparative proceedings. It has become increasingly clear that this is not the case and that significant differences exist but are being ignored in the zeal to implement the lottery process.

The complexity and capital costs of major cellular systems require careful scrutiny by the Commission to provide the best possible service to the public in the shortest possible time. Clearly, the public has already waited far too long for this exciting new service. While the lottery will certainly expedite the *selection* process, in the first instance, it is far less certain that it will expedite *service* to the public given the petitioning process after the winner is chosen. And, of course, there is no consideration of which among the applicants is likely to provide the best service. Thus, the benefits of using the lottery may well prove illusory while its flaws are obvious and enduring.

I have previously expressed my concern that the majority's eagerness to embrace the lottery process is damaging the comparative process.[1] That concern is heightened by each order, such as this one, which continues to find uniformity where disparity exists, eliminating issue after issue as unworthy of comparative consideration.

In those markets where applications are already on file, I find it unreasonable and unnecessary to so drastically change the rules under which mutually exclusive applications are to be decided. There are vast differences in the amount of effort and expense required to prepare an application whose merits are to be compared point-by-point and in preparing a minimally acceptable application to qualify for the lottery process. Those who mistakenly relied upon the Commission's repeated assurances[2] that lotteries would not be used in this service now find that they have spent significant sums of money to speculate in ping-pong balls.

I concurred with the majority in the use of the lottery in the smaller markets for two reasons. First, cellular systems for the smaller markets are likely to be far less complex than in the larger markets thus diminishing the expertise and financial depth required. Second, no applications for the smaller markets have yet been filed and no one will enter the process under false pretenses. It is a game of chance, pure and simple.

Finally, I wholeheartedly support the majority view that the wireline set-aside continues to be a valid concept for all markets.

Re: Amendment of the Commission's Rules To Allow Random Selection for Mutually Exclusive Cellular Applications.

STATEMENT OF COMMISSIONER MIMI WEYFORTH DAWSON CONCURRING IN PART AND DISSENTING IN PART

I concur with the use of random selection for cellular applicants in the 31-90 markets.

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[1] *See* MCI Cellular Telephone Co., CC Docket Nos. 82-796 and 82-721, ____ FCC 2d ____ (released March 6, 1984) (Quello, Commr., concurring).

[2] *See* Cellular Communications Systems, 86 FCC 2d 469, 499 (1981) *modified*, 89 FCC 2d 58 (1982), *further modified*, 90 FCC 2d 571 (1982) *aff'd sub nom.* United States v. FCC, No. 82-1526 (D.C. Cir. March 3, 1983); Second Lottery Report and Order, 93 FCC 2d 952 (1983), *recon. pending.*

One of the worst aspects of government is changing rules and procedures in the "middle of the game." Perhaps nothing can seem as fundamentally unfair to business people who have relied on the promulgation of rules by a federal agency. Ordinarily, I would not favor such a change.

However, I am convinced that there are compelling reasons for doing so in this instance. Primarily, I am convinced that the comparative procedure originally adopted by the Commission has not, for the most part, produced a meaningful comparison of relevant criteria but has devolved, like so many of our broadcast comparative cases, into a trivial comparison of minute factual distinctions. This belief is underscored by our recent decisions in the *Chicago*[1] and *Pittsburgh*[2] cellular proceedings, where our decisions were based on factual distinctions of arguable significance in the operation of a celluar system.[3] My strong preference would have been to refine our cellular comparative procedures and to use tie-breaker lotteries in cases where there are no significant differences (i.e., where factual distinctions cannot be said to affect service to the public).[4] In the absence of this refinement, however, the use of lotteries is simply the lesser of two unappealing alternatives.

Nevertheless, I see no need to impose lotteries on the wireline side of the "91+" markets, and I will dissent from that part of the majority's decision. Initially, it makes no sense to impose lotteries on the wireline side of the "91+" markets but to refrain from imposing them on the wireline side of the 31-90 markets. Moreover, the number of wireline applications in the "91+" markets cannot support the imposition of lottery procedures since the number can be expected to be comparatively small. Finally and most fundamentally, I am afraid that the imposition of lotteries on the wireline side will spell the end of pre-application settlements and cooperative agreements that are now taking shape among rural telephone companies.

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[1] Rogers Radiocall, Inc., 96 F.C.C.2d 1178 (FCC 84-62, released March 6, 1984).

[2] MCI Cellular Telephone Co., 96 F.C.C.2d 1015 (FCC 84-61, released March 6, 1984).

[3] I am heartened to note that the Commission in note 12 of the instant decision emphasizes — as it did in the *Pittsburgh* and *Chicago* decisions — that even in the top-30 markets "it is our view that we have the authority under the public interest standards of Section 309 of the Act and the Administrative Procedures Act to hold a tie-breaker lottery as a *supplement* to a comparative hearing when two or more applicants are 'tied'." (emphasis in original)

[4] It is ironic that the instant decision, at paragraph 19, cites the *Pittsburgh* and *Chicago* cases, decided just a few weeks ago, for the proposition that "the comparative process sometimes results in less than ideal analyses because there are divergent approaches to cellular system design, and the expedited comparative hearing process is ill-suited for comparing these alternatives." (footnote omitted)

SEPARATE STATEMENT
OF
COMMISSIONER HENRY M. RIVERA

RE: (1) Cellular Lottery Rulemaking, CC Docket No. 83-1096; and (2) Application for Review filed by MRTS-Poe of Tampa (CC Docket No. 83-823) and Petition for Reconsideration filed by Cell-Tel Network (CC Docket No. 83-661).

I am steadfast in my belief that the fostering of opportunities for minority ownership and participation in all telecommunications services is a worthy pursuit by this Commission.[1] The Commission has solicited comments regarding the award of minority preferences for this common carrier service.[2] Unfortunately, the record does not establish how awarding preferences on this basis would advance the public interest objectives of the cellular radio service.[3] To eliminate the existing uncertainty on this score, I hope that Congress will give us a clear statutory directive.[4]

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[1] The Commission has previously articulated this belief. For example, in 1978, while establishing policies designed to foster minority participation in broadcasting, the Commission recognized that attention should be directed toward improving minority participation in common carrier and other non-broadcast services. *Statement of Policy on Minority Ownership of Broadcast Facilities*, 68 FCC 2d 979, 984 (1982). Recently, in conjunction with the adoption of *Policy Statement Regarding the Advancement of Minority Ownership in Broadcasting*, 92 FCC 2d 849 (1982), the Commission submitted legislative recommendations to Congress promoting the extension of specified ownership diversification measures for all telecommunications services. *See* FCC NEWS Report No. 5112 (Mimeo No. 1404), released December 3, 1982 (with accompanying Statement of Commissioner Henry M. Rivera).

[2] *Notice of Proposed Rulemaking*, CC Docket 83-1096, FCC 83-430, 48 Fed. Reg. 51493, released October 28, 1983, at paragraph 12.

[3] I am encouraged by the supportive statement of Representative Tim Wirth, Chairman of the House Subcommittee on Telecommunications, Consumer Protection and Finance. 130 Cong. Rec. H 10,561 (daily ed. Nov. 18, 1983). Statutory guidance, comparable to the Minority Telecommunications Ownership Tax Act of 1983 [H.R. 2331, 98th Cong., 1st Sess. (1983)], is necessary to alter the status quo with dispatch.

[4] The purpose underlying this special consideration accorded minority participation in mass media services — diversity of broadcast content — is inapposite in common carrier services such as cellular radio. *Compare Las Misiones de Bejar Television Co.*, ___ FCC 2d _____, adopted March 15, 1984 (Dissenting Statement of Commissioner Henry M. Rivera) (Minority Ownership, in and of itself, furthers mass media ownership and content diversity).

Application, for Review
Comparative Facts, Effect of
Reconsideration, Petition for, Denial of

Application for review and petition for reconsideration of Bureau's designation orders denying minority preferences denied. Commission declined to grant minority comparative preferences in common carrier services.
—*Cellular Mobile Systems of Tampa*
CC Docket No. 83-823

FCC 84-149

BEFORE THE
FEDERAL COMMUNICATIONS COMMISSION
WASHINGTON, DC 20554

In re Application of	CC Docket No. 83-823
Cellular Mobile Systems of Tampa	File No. 26171-CL-P-(8)-82
Bayone of Tampa	File No. 26096-CL-P-(13)-82
MCI Cellular Telephone Company	File No. 26101-CL-P-(9)-82
MRTS-POE of Tampa	File No. 26080-CL-P-(8)-82
Tampa Telephone Company	File No. 26091-CL-P-(11)-82
For a construction permit to establish a cellular system operating on frequency Block A in the Domestic Public Cellular Radio Telecommunications Service to serve the Tampa/St. Petersburg Standard Metropolitan Statistical Area	
In re Applications of	CC Docket No. 83-661

CELL-TEL Network	File No. 26059-CL-P-(11)-82
Bayfone of Miami	File No. 26138-CL-P-(8)-82
Cellular Mobile Systems of Miami	File No. 26170-CL-P-(19)-82
Florida Cellular Telephone Company	File No. 26141-CL-P-(16)-82
MCI Cellular Telephone Company	File No. 26094-CL-P-(9)-82
MRTS-POE of Miami	File No. 26081-CL-P-(6)-82
For a construction permit to establish a new cellular radio system operating on frequency Block A in the Domestic Public Cellular Radio Telecommunications Service to serve the Miami/Fort Lauderdale, Florida modified Standard Metropolitan Statistical Areas	

MEMORANDUM OPINION AND ORDER

Adopted April 11, 1984; Released June 8, 1984

BY THE COMMISSION: COMMISSIONER RIVERA ISSUING A SEPARATE STATEMENT.

1. Before the Commission are an Application for Review filed by MRTS-Poe of Tampa (MRTS-Poe), and a Petition for Reconsideration filed by Cell-Tel Network (CTN) (Petitioners). MRTS-Poe applies for review of the Tampa cellular designation order, *GTE Mobilnet of Tampa, Inc.* (*Tampa Order*), 54 RR 2d 829, released August 10, 1983, in which the Common Carrier Bureau refused to grant a minority preference in designating cellular applications for comparative hearing.[1] CTN petitions for reconsideration of the Miami cellular designation order, *Advanced Mobile Phone Service, Inc.* (*Miami Order*), 54 RR 2d 260, released July 1, 1983, where the Bureau also declined to grant a similar preference request; the Bureau has referred this petition to the full Commission for consideration, under Section 1.106(a)(1) of the rules.

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[1] MRTS-Poe also submitted a Request for Stay of the effectiveness of the Tampa Order; this request is rendered moot by the Commission's action here.

2. MRTS-Poe and CTN argue that significant minority ownership and/or participation in a cellular proposal should result in a comparative or other preference being accorded. Petitioners base their arguments in part upon Commission precedent granting minority preferences to broadcast and other mass media applicants. Petitioners cite *TV 9, Inc. v. FCC*, 495 F. 2d 929 (D.C. Cir. 1973), *cert. denied* 418 U.S. 986 (1974), where mutually exclusive broadcast applicants were designated for comparative hearing. There, petitioners point out, the Court found that the Commission had established a "primary objective of maximum diversification of ownership of mass communications media," and that "it is upon ownership that public policy places primary reliance with respect to diversification of content." *Id.* at 937. Petitioners also cite *Johnston Broadcasting Co. v. FCC*, 175 F.2d 351, 357 (1949), for the proposition that the Commission must consider their minority ownership and participation as a part of any comparative proceeding, because "[t]he Commission cannot ignore a material difference between two applicants."

3. Petitioners also argue that the Commission has long been concerned with maintaining diverse source and viewpoints in the mass media. Under the decision in *Citizens Communication Center v. FCC*, 447 F. 2d 1201, 1213, n. 36 (D.C. Cir. 1971), petitioners point out, public interest considerations in comparative hearings for mass media services came to include minority ownership as a factor, and minority-owned applicants received favorable recognition. MRTS-Poe and CTN also refer to the Commission's 1978 *Statement of Policy on Minority Ownership of Broadcasting Facilities* (*1978 Policy Statement*), 68 FCC 2d 979 (1978), in which the Commission stated that "[f]ull minority participation in the ownership and management of broadcast facilities results in a more diverse selection of programming." Petitioners note that the *1978 Policy Statement* , recognizing that the granting of preferences to minority-owned applicants was effective but inadequate, instituted a program of tax certificates[2] and distress sales[3] to encourage and effectuate increased

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[2] Tax certification guidelines are set forth in Section 1071 of the Internal Revenue Code. Tax certification permits sellers to defer taxation of capital gains resulting from a qualifying sale, thus serving as an incentive to encourage sales of communications properties which promote Commission objectives. The policy as established in 1978 applied only to facilities of mass media. The tax certificate policy has been substantially broadened, to make shareholders in a minority controlled broadcast entity eligible for tax certificates upon the sale of their shares when their interest was acquired to assist in the financing of the acquisition of a broadcast facility. Policy Statement and Notice of Proposed Rulemaking (*1982 Policy Statement*), FCC 82-523, released December 13, 1982, paras. 12-17. This policy change creates a more effective financing tool, resulting in much greater availability of financing for capitalization of minority controlled communications ventures. It should be noted, however, that the policy still applies to mass media facilities only. *See* 47 C.F.R. § 73.4255.

minority ownership of broadcast facilities. Petitioners here ask that the Commission consider using financial stimuli, as well as a comparative preference, to encourage minority participation in the cellular service.

4. We have fully considered the petitioners' arguments, and conclude that the Bureau properly declined to grant preferences for minority ownership of cellular systems. The Commission has traditionally given minority broadcast applicants comparative preferences for reasons that are inapplicable to the cellular radio service. The public interest considerations in common carrier licensing are considerably different from those applicable in licensing mass media outlets, such as broadcast stations. A mass media licensee has control over the content of its transmissions, while a common carrier offers a communications pipeline to its subscribers for the carriage of information of their own choice.[4] The Commission looks to different factors in determining whether the public interest would be served by licensing a mass media outlet as opposed to a common carrier.[5] In the mass media services, we have found that diversification of programming and ownership through the encouragement of minority ownership of broadcast properties in a "legitimate public interest objective of this Commission." *1978 Policy Statement,* 68 FCC 2d at 981. Minority ownership of broadcast stations may result in the airing of views that differ from those of the majority; accordingly, a minority preference in the broadcast area may contribute to a richer diversity of viewpoints in the media.[6] But the purpose underlying the special consideration given to encouraging minority participation in mass media services — diversity of broadcast content — is absent in common carrier services such as cellular radio.

5. Because the diversity of viewpoint rationale underlying the Commission's broadcast minority ownership policy is not applicable in the context of licensing cellular services, we may not award a comparative

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[3] Mass media licensees whose licenses are designated for revocation hearing or whose renewal applications have been designated for hearing on basic qualifications issues are by this policy permitted to transfer or assign their licenses, prior to initiation of the hearing, to qualified minority-owned interests at distress sale prices. *1978 Policy Statement, supra,* at 983. This policy also was reiterated in our 1982 Policy Statement, but still applies to mass media facilities only. *1982 Policy Statement, supra* note 1, at para. 19.

[4] FCC v. Midwest Video Corp., 440 U.S. 689, 701 (1979); National Association of Regulatory Utility Commissioners v. FCC, 533 F.2d 601, 609 and n. 36 (D.C. Cir. 1976); Industrial Radiolocation Service, 5 FCC 2d 197,202 (1966); Frontier Broadcasting Co. v. Collier, 24 FCC 251, 254 (1958). Cellular radio fits squarely within the common carrier classification, as the licensee serves as a conduit only, and does not provide or control content.

[5] *E.g., compare* Cellular Communications Systems, 86 FCC 2d 469, 502-03 (1981) (cellular comparative criteria) with Policy Statement on Comparative Broadcast Hearing, 1 FCC 2d 393 (1965).

[6] *See* Associated Press v. United States, 326 U.S. 1 (1945).

preference to minority cellular applicants on the basis of our broadcast policy. We have not in the past applied that policy in common carrier comparative hearings, and we have stated as recently as 1981 that we will "continue not to provide such preferences in common carrier and private radio hearings." *Random Selection/Lottery Systems,* 88 FCC 2d 476, 483 (1981) (*First Lottery Notice*). If a minority preference is to be awarded in the cellular radio field, it must have some other basis.

6. In the cellular rulemaking proceeding, the Commission sought to determine the criteria that would be used in comparative consideration of cellular applicants. *Notice of Inquiry and Notice of Proposed Rulemaking,* 78 FCC 2d 984,1000 (1980). Although we explicitly invited "suggestions as to what criteria, if any, should be used as the basis for comparative consideration," no commenting party suggested minority ownership as one of the criteria.[7] Thus, seeing no relationship between minority ownership and cellular licensing, and having heard nothing in the comments to suggest the existence of a relationship, we proceeded to rely on well-established common carrier licensing principles:

> In establishing policies for cellular service we have intended to serve the public interest by implementing a nationwide high-capacity mobile communications service capable of providing both local and roaming mobile telephone users the ability to place and receive calls. *The criteria used in selecting licensees should therefore be related to these goals. Cellular Communications Systems,* 86 FCC 2d 469, 502 (1981) (emphasis added).

7. Despite the foregoing, we could still — at least theoretically — grant credits for minority ownership if we found that it is within our existing public interest mandate to foster minority participation in new telecommunications ventures. However, no one has yet articulated what public interest objectives of the Act would be furthered. None of the rationales for minority preferences advanced by petitioners relate to common carrier objectives. In the absence of some public interest goal that is relevant to these objectives, we must decline to award preferences.

8. In any event, this is not the proper forum for establishing a new comparative criterion, such as minority ownership. In the cellular rulemaking the Commission adopted general comparative criteria after notice and comment. The NPRM did not propose, and none of the participants in that rulemaking asked the Commission to use, minority ownership as a comparative criterion, and the criteria adopted did not include minority ownership. In the Cellular Lottery Rulemaking Notice in CC Docket 83-1096, 48 Fed. Reg. 51493 (1983), we solicited comments on whether public interest justifications may exist for minority preferences in using lotteries for cellular licensing; our decision here is not based on the record of that

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[7] *See* Cellular Communications Systems, 86 FCC 2d at 513-59 (summary of the comments and reply comments).

proceeding and is without prejudice to any result that may be reached on that record. Introduction of a new substantive ground for comparison after the applications have been filed without further rulemaking would be unfair to parties who filed in reliance on the Commission's stated criteria.

9. Accordingly, IT IS ORDERED that the Application for Review of MRTS-Poe of Tampa IS DENIED.

10. IT IS FURTHER ORDERED that the Petition for Reconsideration of Cell-Tel Network is DENIED.

11. IT IS FURTHER ORDERED that the Request for Stay of MRTS-Poe of Tampa IS DISMISSED as moot.

12. The Secretary shall cause a copy of this order to be published in the Federal Register.

FEDERAL COMMUNICATIONS COMMISSION
WILLIAM J. TRICARICO, *Secretary*

SEPARATE STATEMENT
OF
COMMISSIONER HENRY M. RIVERA

RE: (1) Cellular Lottery Rulemaking, CC Docket No. 83-1096;
(2) Application for Review filed by MRTS-Poe of Tampa (CC Docket No. 83-823) and Petition for Reconsideration filed by Cell-Tel Network (CC Docket No. 83-661).

I am steadfast in my belief that the fostering of opportunities for minority ownership and participation in all telecommunications services is a worthy pursuit by this Commission.[1] The Commission has solicited comments regarding the award of minority preferences for this common carrier service.[2] Unfortunately, the record does not establish how awarding preferences on this basis would advance the public interest objectives of the cellular radio service.[3] To eliminate the existing uncertainty on this score, I hope that Congress will give us a clear statutory directive.[4]

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[1] The Commission has previously articulated this belief. For example, in 1978, while establishing policies designed to foster minority participation in broadcasting, the Commission recognized that attention should be directed toward improving minority participation in common carrier and other non-broadcast services. *Statement of Policy on Minority Ownership of Broadcast Facilities,* 68 FCC 2d 979, 984 (1982). Recently, in conjunction with the adoption of *Policy Statement Regarding the Advancement of Minority Ownership in Broadcasting,* 92 FCC 2d 849 (1982), the Commission submitted legislative recommendations to Congress promoting the extension of specified ownership diversification measures for all telecommunications services. *See* FCC NEWS Report No. 5112 (Mimeo No. 1404), released December 3, 1982 (with accompanying Statement of Commissioner Henry M. Rivera).

[2] *Notice of Proposed Rulemaking,* CC Docket 83-1096, FCC 83-430, 48 Fed. Reg. 51493, released October 28, 1983, at paragraph 12.

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[3] I am encouraged by the supportive statement of Representative Tim Wirth, Chairman of the House Subcommittee on Telecommunications, Consumer Protection and Finance. 130 Cong. Rec. H 10, 561 (daily ed. Nov. 18, 1983). Statutory guidance, comparable to the Minority Telecommunications Ownership Tax Act of 1983 [H.R. 2331, 98th Cong., 1st Sess. (1983)], is necessary to alter the status quo with dispatch.

[4] The purpose underlying this special consideration accorded minority participation in mass media services — diversity of broadcast content — is inapposite in common carrier services such as cellular radio. *Compare Las Misiones de Bejar Television Co.*, ___ FCC 2d ___, adopted March 15, 1984 (Dissenting Statement of Commissioner Henry M. Rivera) (Minority Ownership, in and of itself, furthers mass media ownership and content diversity).

Common Carrier, Authorization
Construction Permit Issuance of
Digital Transmission

Applications for authorization to construct and operate limited networks in Digital Electronic Message Service granted. Carrier is legally, technically and financially qualified to offer service. Petitions to deny denied.
—*C&P Telephone Co. of Virginia*

FCC 84-178

BEFORE THE
FEDERAL COMMUNICATIONS COMMISSION
WASHINGTON, D. C. 20554

In re applications of	
Chesapeake and Potomac Telephone Company of Virginia	File Nos. 10578-CDM-P-82 10579-CDM-P-82
For Authority to Construct and Operate Limited Networks Consisting of Single Digital Termination Systems in the Digital Electronic Message Service.	

MEMORANDUM OPINION AND ORDER

Adopted April 26, 1984; Released May 11, 1984

BY THE COMMISSION:

1. We have before us the applications of Chesapeake and Potomac Telephone Company of Virginia (C&P) for authorization to construct two Limited networks in the Digital Electronic Message Service (DEMS). Each network will consist of a single Digital Termination System (DTS), one located in Richmond and the other located in the Norfolk, Virginia Standard Metropolitan Statistical Area (SMSA).[1] C&P is a Bell Operating Company (BOC) offering exchange access and exchange telecommunications services. Petitions to deny C&P's construction permit applications

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[1] For Richmond, Application 10578-CDM-P-82, C&P has applied for DTS channel 10; for Norfolk, Application 10579-CDM-P-82, C&P has applied for channel 9. C&P has estimated the system cost for each DTS at $435,000.00.

have been filed by American Business Communications Company (ABCC),[2] by Tymnet, Inc. (Tymnet), and by Warner Amex Cable Communications Company (Warner).

2. The petitions present essentially two arguments supporting dismissal or denial of the applications. These are: (1) that C&P is barred from providing this service under the terms of the Modified Final Judgment (MFJ or Decree) in *United States v. American Telephone & Telegraph Co.*, [3] and (2) that permitting C&P to provide DEMS would not be in the public interest, in that C&P can use its local exchange monopoly to deny interconnection to its DEMS competitors and to cross-subsidize its own competitive DEMS from its regulated monopoly exchange revenues. ABCC submits that this anticompetitive potential justifies denial of the applications; Warner suggests that these same considerations justify a moratorium on C&P's entry into DEMS; and Tymnet recommends that C&P be permitted to offer DEMS only outside of its exchange areas and only through a separate subsidiary. C&P has filed an opposition contesting the merits of these petitions, and further contending that the petitions of Tymnet and ABCC are defective under Part 21 of our rules.[4]

3. We conclude that BOCs such as C&P appear sufficiently qualified to offer DEMS within the line of business limitations of the MFJ so that we should not deny their applications on this basis. We find further that the possibility is remote that other DEMS carriers will be disadvantaged by BOC discrimination in providing access to local wireline networks, and the potential for cross-subsidization that would disadvantage both the ratepayers and the competitors does not justify structural separation.

I. Background

4. DEMS is a common carrier service that provides end-to-end transmission of digitally encoded information. A DEMS network consists

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[2] ABCC has since changed its name to Digital Telecom, Inc. For purposes of this opinion, however, we will continue to refer to it by its original name, which it has retained on its pleadings in this action.

[3] 552 F. Supp. 131 (D.D.C. 1982), *aff'd mem. sub nom.* Maryland v. United States, 103 S. Ct. 1240 (1983).

[4] In its opposition C&P has contended that the Petitions of Tymnet and ABCC are defective in that they are not verified, and that Tymnet's petition specifically does not contain allegations that Tymnet is a party in interest. *See* 47 C.F.R. § 21.30(a)(3). However, Tymnet has alleged that it is a competitor of C&P in both Richmond & Norfolk. In addition, the gravamen of Tymnet's petition is that C&P will treat its competitors unfairly; this presumably includes Tymnet. To the extent that Tymnet is a potential competitor of C&P's proposed service, and has alleged potential economic injury, it is a proper party in interest. *See* FCC v. Sanders Bros. Radio Station, 309 U.S. 470 (1940); Camden Radio v. FCC, 220 F.2d 191, 195 (D.D.C. 1955). We also find that the relevant factual allegations in these petitions are based on C&P's applications, on our own decisions in various dockets, and on findings of the United States federal courts. We may take official notice of all these without the need for verification.

of DTS located in one or more cities. The cities in a network are connected by some form of inter-city digital transmission service. Each DTS in turn consists of a nodal station which transmits information in an omnidirectional manner to user stations, and user stations which communicate with the nodal station in a point-to-point manner.

5. DEMS was established by our order in *Digital Termination Systems,* 86 F.C.C.2d 360 (1981), *modified,* 90 F.C.C.2d 319 (1982) *further modified,* 54 Rad. Reg. 2d (P&F) 1091 (1983), *petition for review dismissed sub nom. Alascom, Inc. v. FCC,* 727 F.2d 1212 (D.C. Cir. 1984). In that docket we allocated spectrum and adopted rules for DTS and internodal links. Sufficient spectrum was allocated for thirteen channels at 10.6 GHz, to accommodate up to seven Extended networks and six Limited networks in each SMSA.[5] Of these thirteen channels, nine have been allocated to common carriage.[6] In addition, we have subsequently allocated ten channels at 18 GHz for DTS operations.[7]

6. In establishing DEMS, we recognized that the question of the circumstances under which telephone companies should be permitted to obtain DEMS authorization in their own service areas raised unique public interest issues. We pointed out that the telephone companies' monopoly control of local exchange facilities could conceivably enable those companies to cross-subsidize and to practice discriminatory denial of access to their exchange networks. 86 F.C.C.2d at 386-87. For this reason, we reserved the question of telephone company entry into DEMS for subsequent resolution. *Id.*

7. In *ISA Communication Services, Inc.* (*ISACOMM*), 90 F.C.C.2d 938 (1981), we faced the question of telephone company provision of DEMS. Subsequent to ISACOMM's filing of an application for an Extended DEMS network, we approved transfer of control of ISACOMM to United Telecommunications, Inc. (United). United-affiliated telephone companies offered basic telephone service in ten of the 40 Standard Metropolitan Statistical Areas (SMSAs) to be served by ISACOMM's DEMS network. Petitions to deny were filed, arguing that United's ownership of these wireline networks offered the possibility both of limited interconnection as well as cross-subsidization. *ISACOMM,* 90 F.C.C.2d at 945-47.

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[5] An extended DEMS network consists of commonly owned, managed, and interconnected DTS facilities in at least 30 SMSAs. A Limited DEMS network can consist of DTS facilities in as few as one and as many as 29 SMSAs. 86 F.C.C.2d at 369-71.

[6] We had originally allocated all thirteen channels to common carriage. In our Second Report and Order, however, channels 4, 7, 9, and 19/20 were reallocated for private use effective September 9, 1983. All existing common carrier DTS applicants, permittees and licensees on those channels were grandfathered. *See* 54 Rad. Reg. 2d at 1094-1096.

[7] Of these channels, five are for common carriage and five are for private radio service. *Id.*

8. In approving ISACOMM's application, we determined that the problems of access and cross-subsidization did not justify restricting ISACOMM's provision of DEMS. We found that neither ISACOMM nor any other applicant at that time had proposed to rely extensively on local wireline facilities for the provision of the new service. For this reason, we concluded that it was unlikely that United could use its local wireline facilities either to "unfairly compete with other providers of DEMS or to inhibit the growth of this service by refusing to provide interconnection." 90 F.C.C.2d at 946. With regard to cross-subsidization, we found that the possible presence of many DEMS providers in a given SMSA diminished the potential for cross-subsidization, especially in ISACOMM's case in which United's share of local exchange service exceeded three percent in only two of the SMSAs which ISACOMM proposed to serve. 90 F.C.C.2d at 946-47.

9. In contrast to the situation in *ISACOMM,* the case now before us presents the issues more squarely. Unlike United, C&P owns virtually all of the local regulated wireline network in the areas it seeks to serve. In addition, since our decision in *ISACOMM* the MFJ has become effective, placing line-of-business limitations on the types of services which BOCs such as C&P can offer after divestiture. These matters directly relate to our determining in this proceeding whether and under what conditions C&P can offer DEMS in its telephone service area.

II. MFJ Line of Business Limitations

10. As a preliminary matter, we must determine whether C&P is legally, financially, technically, and otherwise qualified to offer DEMS. *See* 47 C.F.R. § 21.32(b). In its petition Warner contends that C&P is not legally qualified to offer DEMS because such a service does not fall within the line-of-business limitations of the MFJ. According to Warner, the terms of the MFJ must be construed narrowly to "grandfather" existing wireline monopoly services provided by BOCs, and nothing more. Warner submits that the decree prohibits any BOC from offering a service of the nature of DEMS because it is not an "exchange access" or "exchange telecommunications" service within the meaning of the MFJ. C&P's position is that DEMS is both exchange access and exchange telecommunications, and that it is legally qualified to offer the service.

11. Under the MFJ's line-of-business limitations, the BOCs can offer three types of services: exchange access service, exchange telecommunications service, and any other service that is a natural monopoly actually regulated by tariff. A BOC may not offer interexchange telecommunications services or information services.[8]

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[8] The MFJ provides in relevant part:

After completion of the reorganization . . . no BOC shall, directly or through any

12. We note first that the DEMS network of C&P does not appear to constitute an interexchange telecommunications service, and thus to be barred for this reason. The MFJ defines "interexchange telecommunications service" as "telecommunications between a point or points located in one exchange telecommunications area and a point or points located in one or more other exchange areas or a point outside an exchange area." 552 F. Supp. at 229. It is true that the proposed DTS facilities at Norfolk and Richmond would be in two separate exchange areas. However, C&P proposes to use each DTS facility only for the provision of service within each exchange area.[9] While C&P does propose to permit interconnection of its DTS facilities with the interexchange digital networks of other carriers, such interconnection would not amount to interexchange telecommunications *by C&P* unless C&P itself were to provide the interexchange link. So long as this is not done, provision of the DTS facilities by C&P seems not to be barred by the MFJ prohibition against interexchange service.[10]

13. The inquiry thus becomes whether C&P's provision of DEMS is within its permissible line-of-business limitations (i.e., is an exchange access service, an exchange telecommunications service, or any other natural monopoly service actually regulated by tariff). We note initially that the provision of DEMS is not a "natural monopoly service actually regulated by tariff." 552 F. Supp. at 228. In our decision in *Digital Termination Systems* we adopted a policy of encouraging multiple entry to stimulate efficient and economic use of DEMS, and allocated channels for six Limited and seven Extended DEMS networks. *See* 86 F.C.C.2d at 386. As noted above, we have since added 10 additional channels to the service at 18 GHz. Because such a service has the potential for a number of competitors in each SMSA, it is clearly not a natural monopoly, and the BOCs would not be permitted to provide it under the MFJ without a

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> affiliated enterprise . . . provide interexchange telecommunications services or information services . . . or provide any other product or service, except exchange telecommunications and exchange access service, that is not a natural monopoly service actually regulated by tariff.

552 F. Supp. at 227-28.

[9] C&P Opposition at 5.

[10] Warner makes the argument in passing that because the omni-directional microwave transmission may transcend exchange area boundaries, the service is *per se* an interexchange service. Warner Petition at 5, note 4; Warner Reply at 6-7. We reject this argument. As long as both the nodal station and the user stations are located within the same exchange area, the service would not violate the MFJ. It appears that the focus of inquiry should be on the nature of the service offered by the carrier, and not on whether it would be possible to imagine a situation in which the service could be used improperly. As long as the BOCs do not offer interexchange service, they seem to be qualified to provide DEMS under the MFJ.

waiver, unless it fell within the other two permissible services, "exchange access" or "exchange telecommunications."

14. The MFJ defines "exchange access" as "the provision of exchange services for the purpose of originating or terminating interexchange telecommunications," along with any activity or function in connection therewith. 552 F. Supp. at 228-29. Such services "shall be provided by facilities within the exchange area for the transmission, switching, or routing" of interexchange traffic. *Id.* As noted above, C&P proposes to make its DTS facilities available for interexchange digital networks of other carriers, and takes the position that this qualifies as an exchange access service. C&P Opposition at 5. We find this position a compelling one. The MFJ permits C&P to provide any exchange service that originates or terminates telecommunications between a point within C&P's exchange areas and a point or points in one or more other exchange areas. There is nothing on the face of the MFJ which requires this service to be offered only through the existing BOC exchange wireline monopoly facilities. Thus, it appears that the MFJ does not merely "grandfather" existing monopoly services; any telecommunications originating or terminating in C&P's exchange areas and routed through its DTS facilities to an interexchange carrier seems to constitute "exchange access service" under the MFJ.

15. In similar fashion, we conclude that DEMS service between points in the same exchange area via DTS facilities (e.g. between two users connected through one DTS facility) appears to constitute "exchange telecommunications" service within the meaning of the MFJ. The term "exchange telecommunications" service refers to service between two points in the same exchange area.[11] Again, we find nothing in the language of the MFJ which limits this to the monopoly service presently offered by the BOCs. C&P contemplates offering its DEMS as exchange telecommunications in two ways: (a) by offering communication service using only DTS facilities; and (b) by connecting its DTS facilities to its local digital network. C&P Opposition at 4-5. C&P would be qualified to do either under the explicit language of the MFJ.[12]

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[11] While the MFJ does not define the term "exchange telecommunications service", the definition can be derived from the definitions of "exchange", "telecommunications", "telecommunications service", and "telecommunications facilities". *See* 552 F. Supp. at 229-30.

[12] The use of DTS facilities to provide exchange telecommunications service within the meaning of the MFJ would not affect our legal authority to preempt inconsistent non-federal regulation of DTS licensees. DEMS service, even when used in conjunction with a Limited DEMS network operating in one SMSA, is not necessarily "telephone exchange service" within the meaning of Section 221(b) of the Act, 47 U.S.C. § 221(b). The term "exchange" under the MFJ has a different meaning than when it is used in Section 221(b). Under the MFJ the term has become synonymous with Local Access and

16. We note that our interpretations appear consistent with the District Court's analysis of the MFJ. While the Court has not specifically addressed the question of BOCs providing DEMS, and the parties may bring that question before the Court for future resolution, the Court has stated that the decree permits a BOC to offer transmission service by using various facilities, including wire, coaxial cable, microwave, satellite, and fibre-optic cable. 552 F. Supp. at 229-30. DEMS uses microwave transmission facilities. We note further the Court's remarks that the decree was not intended to prevent the BOCs from upgrading their local networks to handle the more advanced needs of future users. *See, e.g.*, 552 F. Supp. at 190 (upgrading anticipated to handle needs of technologically advanced information services).

17. For the reasons stated above, we deny that portion of Warner's petition challenging the ability of C&P under the MFJ to offer Limited DEMS service within their exchange areas, and to permit interconnection with interexchange digital networks of other carriers. C&P ability to offer this service under the MFJ appears sufficiently clear for our regulatory purposes so that we should not deny its applications on this basis.

III. Public Interest Challenges

18. All petitioners urge that C&P's applications are not in the public interest because of the potential for anticompetitive behavior on the part of C&P, either by denying interconnection or by cross-subsidizing DEMS from their monopoly revenues. Petitioner ABCC submits that these considerations should bar any BOC from offering DEMS. Tymnet urges that we adopt restrictions that would prevent BOCs from offering DEMS in their own exchange areas, and that would require any other BOC-provided DEMS to be offered through a separate corporate subsidiary. Warner suggests that we impose a moratorium on C&P's entry into DEMS. We will first analyze the proposals of ABCC and Warner.

A. Denial or Delay of Market Entry

19. In its petition to deny, ABCC has alleged that the potential for discriminatory wireline access and for cross-subsidization justify denying C&P's applications absolutely. Warner contends that these same problems justify a moratorium on C&P's entry into the DEMS market. Neither of these alternatives is in the public interest. As we will discuss below, we feel that there are less restrictive alternatives that can be taken to prevent these problems from occurring. To that extent, we feel that the

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Transport Area (LATA); the MFJ specifically defines the term "exchange" to mean a geographic area that, *inter alia*, encompasses "one *or more* contiguous local exchange areas serving common social, economic, and other purposes, even where such configuration transcends municipal or other local governmental boundaries." 552 F. Supp. at 229 (emphasis added).

public interest would be best served by permitting a qualified applicant such as C&P to provide DEMS. Entry of BOCs may expand the availability of, and increase the competitive suppliers for, DEMS generally. For these reasons, we conclude that neither a denial of the applications nor a moratorium would be in the public interest.

B. Separate Corporate Subsidiary

20. Tymnet in its petition has suggested that the BOCs be required to offer DEMS through a separate subsidiary, and to offer DEMS only outside the exchange area of the BOC. To justify such a remedy, the benefits of imposing it must outweigh the costs. *ISACOMM*, 90 F.C.C.2d at 946-47; *Cellular Communications Systems*, 89 F.C.C.2d at 78, *modifying* 86 F.C.C.2d 469 (1981). Tymnet has advanced two benefits to be gained from separation: (1) the prevention of discrimination by C&P in providing access to its wireline network, in that C&P would be required to offer DEMS only outside of its exchange area, and (2) the prevention of cross-subsidization, in that separation will prevent monopoly activities from subsidizing competitive activities. Tymnet Petition at 13-14.

21. In its opposition in this proceeding, C&P argues that the possibility of cross-subsidization would be minimal because the limited local exchange service is "a particularly unlikely source of funding" for predatory pricing in the DEMS market. C&P Opposition at 10. C&P further argues that the cost of a fully separate subsidiary in this instance, as in *ISACOMM*, would outweigh the advantages. We will deal with each of the benefits and costs in turn.

1. Discriminatory Interconnection

22. The first proposed benefit of separation is the prevention of unjustified discrimination or denial by C&P of access to its local wireline network for its DEMS competitors. Although this argument is similar to the "bottleneck" argument that has been recognized in previous examples cited by petitioners in their pleadings,[13] we have not previously resolved this issue with regard to DEMS. For example, we found in *ISACOMM* that neither the telephone company in that case nor any other applicant had proposed interconnection with local distribution wireline facilities; indeed, none of the DEMS networks at that time relied upon such interconnection. 90 F.C.C.2d at 946.

23. In theory, interconnection between a DEMS network and a local exchange network would not be a critical factor influencing the viability of that DEMS. Our purpose in allocating spectrum for the service was, *inter alia*, to provide "a competitive alternative to monopoly carriers

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[13] Petitioners in their briefs refer to past actions of AT&T using control of bottleneck facilities to deny access to local exchanges for competitive intercity services for which such denial would be fatal. *See, e.g.*, Tymnet Petition at 12-13; Warner Reply at 8-9.

providing existing local distribution services." *Digital Termination Systems*, 86 F.C.C.2d at 363. Unlike the situation in the examples cited by petitioners, denial of interconnection would not defeat the main purpose of a DEMS provider, which would be to offer an alternative to the very network to which interconnection was denied.

24. This theory is supported by the structure of existing and proposed DEMS networks. Although all petitioners hypothesize situations in which they may want to use local digital wireline facilities to reach potential customers, our experience to date suggests that such situations would be the exception rather than the rule. Indeed, with the exception of the BOCs, no DEMS applicant to date has featured such interconnection as a major part of its system description.[14]

25. In *Digital Termination Systems*, we decided not to promulgate technical standards for interconnection between DTS facilities and other common carrier facilities. Instead, we required publication by carriers of necessary interface information. 86 F.C.C. 2d at 388. Our policy favoring reasonable interconnection practices and charges between carriers is well established, pursuant to Sections 201 and 202 of the Communications Act, 47 U.S.C. §§ 201, 202.[15] We require that all exchange carriers, including those providing DEMS in their exchange areas, provide reasonable and nondiscriminatory interconnection for all DEMS providers. As in the case of other types of interconnection, we conclude that requiring exchange carriers to provide all such interconnections via tariffs would promote our regulatory goals. Any DEMS carrier injured by unreasonable or discriminatory interconnection practices or charges could petition for relief pursuant to Section 208 of the Act, 47 U.S.C. § 208.

26. Given these requirements for DEMS interconnection, we conclude that the ability of a BOC to discriminate in the provision of access to its wireline network would not justify a separate subsidiary requirement for the BOCs, and would not justify prohibiting a BOC from offering DEMS in its exchange areas.

2. Cross-subsidization

27. The prevention of cross-subsidization is the second benefit which Tymnet advances in support of a separate subsidiary. As with the

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[14] Tymnet has applied for a DEMS network on a different channel, and has proposed interconnecting its DEMS with its value-added wireline service. Tymnet Reply at 10-11.

[15] *See* Bell Systems Tariff Offerings, 46 F.C.C. 2d 413, 428, *aff'd sub nom.* Bell Telephone Co. of Pennsylvania v. FCC, 503 F.2d 1250 (3rd Cir. 1974); *see also* AT&T Offer of Facilities to Other Common Carriers, 92 F.C.C.2d 1216, *modified*, FCC-83-550 (Released December 12, 1983); Cellular Communication Systems, 89 F.C.C.2d 58, 81 (1982); Lincoln Tel. & Tel. Co., 72 F.C.C.2d 724 (1979), *aff'd*, 659 F.2d 1092 (D.C. Cir. 1981); Interconnection Facilities Provided to the Int'l Record Carriers, 63 F.C.C.2d 761 (1977); AT&T Restrictions on Interconnection of Private Line Serv., 60 F.C.C.2d 939 (1976).

interconnection issue, the matter of cross-subsidization of DEMS by BOCs has not been resolved in our previous decisions. In our decision in *Digital Termination Systems* we noted the theoretical possibility that a telephone company could subsidize its competitive DEMS with its regulated phone service, to the disadvantage both of its ratepayers and its competitors. 86 F.C.C.2d at 386-387. We also noted at that time that we did not have an adequate record to resolve the issue.

28. Structural separation imposes costs on carriers through duplicate or less efficient marketing, installation, maintenance, billing and other operations. We have recognized these costs in our various decisions to impose or refrain from imposing structural separation.[16] As in our *ISACOMM* decision, we do not believe that the benefits of structural separation outweigh the costs here. The amount of possible undetected cost shifting from DEMS into the rate base for C&P's other exchange and exchange access services is far smaller than the amounts involved in customer premises equipment, enhanced services, or cellular services.[17] For this reason, we cannot conclude that the benefits which would be derived from structural separation would be sufficiently significant to outweigh the costs and inefficiencies involved.[18]

29. We emphasize, however, that all DEMS charges must be just, reasonable, and not unduly discriminatory under the Act. 47 U.S.C. §§ 201 and 202. Any carrier, customer or other party that feels injured by such actions of a BOC has a remedy provided by Sections 206 through 209 of the Act, 47 U.S.C. §§ 206-209. Such a party may bring a complaint before

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[16] In the Matter of Policy and Rules Concerning the Furnishing of Customer Premises Equipment, Enhanced Services and Cellular Communications Services by the Bell Operating Companies (Bell Operating Cos.), 55 Rad. Reg. 2d (P&F) 49 (1984); ISACOMM, 90 F.C.C.2d at 947; An Inquiry into the Use of the Bands 825-845 MHz and 870-890 MHz for Cellular Communications Systems, 86 F.C.C.2d 469 (1981), *modified*, 89 F.C.C.2d 58 (1982); Amendment of Section 64.802 of the Commission's Rules and Regulations (Second Computer Inquiry), 77 F.C.C.2d 384, *modified*, 84 F.C.C.2d 50 (1980), *further modified*, 88 F.C.C.2d 512 (1981), *aff'd sub nom.* Computer & Communications Industry Ass'n v. FCC, 693 F.2d 198 (D.C. Cir. 1982), *cert. denied sub nom.* Louisiana Public Serv. Comm'n v. FCC, 103 S. Ct. 2109 (1983).

[17] For example, AT&T estimated its cellular activities involved approximately $192.7 million for preoperational research, systems engineering and development by June 30, 1982, with $967.9 million in additional financing needed through 1986 to cover the cellular subsidiary's net operating losses. *See* AT&T Request for Approval of Capitalization Plan for AT&T Cellular Co., FCC 83-126 (Released April 15, 1983). This results in costs easily exceeding $10 million per cellular system over only a few years of operation. By contrast, C&P estimates the system cost of each DTS at $435,000, and operating costs for a DEMS service will be substantially less than for a cellular system.

[18] We currently see no reason to require separate books of account in this case. We do not generally require the accounting separation of two of a company's regulated services. However, we expect that C&P will target its DEMS rates to earn a return comparable to its overall rate of return.

the Commission to enjoin such activities as well as to collect monetary damages for any loss caused thereby. In addition, our tariff review procedures provide an opportunity to detect costs of DEMS improperly allocated to some other service. Finally, additional safeguards exist to protect customers of the rate-base regulated exchange service of BOCs, in the form of state and federal tariff regulation of the exchange services of BOCs such as C&P.

30. We note finally that DEMS as a service is still in its embryonic stages.[19] Until such time as the service develops on a more widespread basis, it is difficult for us to forecast the nature or impact of any potential cost-shifting. If, however, in the future the problem becomes more significant than would presently seem, we will consider at that time the need for such measures as structural separation.

Ordering Clauses

31. ACCORDINGLY, it is ORDERED that the petitions of Warner, ABCC and Tymnet are DENIED.

32. C&P shall be required to provide just, reasonable, and nondiscriminatory interconnection for all DEMS services via tariff. In all other respects, we FIND under the standards of public interest, convenience and necessity of § 214 and Title III of the Communications Act, that C&P is legally, financially, technically, and otherwise qualified to construct the facilities for which it has applied. The system applications of C&P are hereby GRANTED, and construction permits are hereby GRANTED for the specific facilities described in the applications of C&P in files no. 10578-CDM-P-82 and 10579-CDM-P-82.

FEDERAL COMMUNICATIONS COMMISSION

WILLIAM J. TRICARICO, *Secretary*

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[19] Our records show that as of March, 1984, we have granted 208 construction permits for DTS facilities. Only six of these permittees have licenses granted or on file.

Common Carrier, Data Processing Service
Common Carrier, Interconnection
Common Carrier, International
Common Carrier, Overseas
Common Carrier, Specialized Services

This report addresses the comments and U.S. telecommunications policies (such as those of Computer II) as they relate to the ongoing ISDN planning efforts, with the intended effect that sufficient flexibility will be built into the ISDN plans to accommodate U.S. policies.

—*Integrated Services Digital Networks*
Gen. Docket No. 83-841

FCC 84-131

BEFORE THE
FEDERAL COMMUNICATIONS COMMISSION
WASHINGTON, D. C. 20554

In the Matter of Integrated Services Digital Networks (ISDN)	Gen. Docket No. 83-841

FIRST REPORT

Adopted: March 30, 1984; Released: April 2, 1984

BY THE COMMISSION:

I. Introduction:

1. In August, 1983, we released a *Notice of Inquiry* in this proceeding[1] (hereafter, "Notice"), seeking comment on a variety of issues arising from the worldwide effort to define, and in some respects to standardize through international recommendations, the evolution of analog telecommunications facilities to integrated digital ones. We noted that while telecommunications historically was largely directed to transmission of analog information in analog form[2], digital facilities increasingly have

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[1] Integrated Services Digital Networks (ISDN), 94 FCC2d 1289, 83-373, released Aug. 10, 1983, 48 Fed.Reg. 37464 (Aug. 18, 1983).

[2] Of course, we refer largely to telephone services in making this observation. Telegraph services from their inception have been digital in nature, to the extent that telegraph signals have been quantized in level and in time.

been used to transmit information originated in analog form. At the same time, transmission of digital signals themselves (over analog and digital transmission facilities) has become increasingly common.[3] The integrated services digital network (ISDN) concept is thought to represent the next step in the evolution of telecommunications from analog to digital: ISDN facilities are to be digital and compatible with digital signals, and any analog equipment to be connected therewith is to be rendered compatible with the digital transmission facilities.[4]

2. In the Notice, we observed that this worldwide effort has been underway for some time, involving a diversity of participants and fora (numerous countries and their telecommunications administrations, non-governmental telecommunications entities, equipment manufacturers, professional organizations and international bodies). International efforts have been concentrated in the International Telecommunications Union (I.T.U.), primarily in its International Telegraph and Telephone Consultative Committee (CCITT) suborgan, using concepts which are evolving from efforts of another international body, the International Standards Organization (ISO) to arrive at general models for the interconnection and interoperability of computer and communications systems, the "Open Systems Interconnection" (ISO/OSI) model. United States efforts have been concentrated in domestic voluntary standardization bodies, in efforts by United States carriers, service vendors and manufacturers, in professional and trade organizations, and in governmental advisory committee activities which are employed to solicit the views of the private sector in arriving at governmental positions to be espoused in international bodies.[5]

3. We also observed that this agency has an interest in the evolution of ISDN. We have a policy interest because much of the analysis of the ISDN concept has involved classification of communications and information-handling functions which, at the time the Notice was adopted, might have been difficult to reconcile with our *Second Computer Inquiry* ("Computer II") declaration that only basic telecommunications services, and not enhanced services or customer-premises equipment, are subject to Title II regulation under the Communications Act.[6] Our pro-competitive

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[3] Digital signals have been rendered compatible with analog transmission facilities through the use of modulator/demodulator ("MODEM" or dataset) equipment.

[4] Thus, existing facilities have been usable with simple analog telephones without additional conversion, and conversion equipment such as MODEMs have been required for transmission of digital signals. Under the ISDN concept, the facilities would be compatible with digital signals without conversion, and analog equipment will require conversion equipment for compatible transmission.

[5] *See,* Notice at paras. 11-16 and Attachment II for a description of the advisory committee process which has been utilized.

[6] This declaration also forecloses similar state regulation of enhanced services and customer-premises equipment. *See,* Second Computer Inquiry, 77 FCC2d 384 (Final

Computer II policies, when applied to the ISDN concept, lead to the conclusion that both basic ISDNs and enhanced ISDNs will evolve in the United States. We tentatively concluded that it is important that the overall ISDN concepts which evolve appropriately accommodate the Computer II policies, that a multiple-vendor environment in the United States not be foreclosed through technical recommendations or concepts directed towards a single-vendor environment, and more generally, that sufficient flexibility be built into the ISDN concepts to accommodate the broad range of different market structures which exists in various nations.[7]

4. We also have a potential regulatory interest since, under the Communications Act of 1934 as amended, FCC certification may at some point be required that the public convenience and necessity will be served by the construction and acquisition of many facilities by facilities-based carriers to implement the ISDN concept.[8] And, to the extent that other forms of Title II regulation will apply to basic ISDNs or to the offering by carriers of the facilities which support enhanced ISDNs,[9] it is important that the overall ISDN concepts accommodate our policies in favor of truly general common carrier offerings, made in a manner which does not unreasonably discriminate, and which supports privately beneficial uses of common carrier offerings which are not publicly harmful.

5. We made it clear that it was not our intent in instituting this inquiry to plan ISDN facilities, nor to impede the worldwide efforts which are

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Decision), *recon.*, 84 FCC2d 50 (1980), *aff'd sub nom.*, CCIA v. FCC, 693 F.2d 198 (D.C. Cir. 1982), *cert. denied sub nom.*, Louisiana v. United States, _____ U.S. _____ (1983).

[7] The United States has an increasingly competitive overall telecommunications market structure in the private sector, encompassing multiple providers of regulated services, and multiple unregulated providers of enhanced services and customer-premises equipment. Some other nations have pursued a more integrated approach to provision of telecommunications, in many cases through provision of telephone, telegraph and related services by a governmental Postal, Telephone and Telegraph (PTT) administration. Outside the United States, there are diverse instances of mid-grounds between these end points, for example with multiple entities providing satellite and terrestrial facilities and services, or multiple entities providing domestic and international facilities and services. Also, different administrations approach the fundamental Computer Inquiry issue of distinguishing information-handling/computer-based services from communications differently.

[8] *E.g.*, Section 214 of the Act, 47 U.S.C. § 214. If the facilities are radio or satellite-based, licensure may be required under Title III of the Act, 47 U.S.C. §§ 301 et seq., and/or the Communications Satellite Act of 1962 as amended, 47 U.S.C. § 701 et seq. If the facilities are international cable facilities, authorization may also be required under the Cable Landing Act, 47 U.S.C. §§ 21 et seq.

[9] It should be noted that enhanced services are defined as "services, offered over common carrier transmission facilities . . . ", 47 C.F.R. § 64.702(a).

underway.[10] Rather, it was our intent to summarize the overall United States telecommunications policies which bear upon the evolution of the ISDN concept in an ISDN-focused manner, and to seek comment on the degree to which the evolving concepts accommodate these policies. We acknowledged the largely technical nature of the international and domestic ISDN efforts, and questioned whether the diffuse worldwide process adequately weighs in these policy considerations. We sought comment on the appropriate role of this Commission and its staff in the ISDN evolutionary process,[11] recognizing that while the FCC will have a regulatory role in the implementation by United States carriers of ISDN,[12] action on an *ad hoc* (and largely *post hoc*) basis at a later stage may prove less than ideal. And, we sought comment on how it might most effectively be assured that the pro-competitive, multiple-vendor telecommunications policies of the United States are made known to the diversity of entities and bodies which are involved in the evolution of ISDN, towards the end that the ISDN concept is sufficiently flexible to accommodate these policies.[13] *See,* Attachment I to the Notice for a more complete list of the subjects upon which comment was sought.

6. A final set of purposes in instituting this inquiry was, through its existence, to seek to stimulate broader-based participation in the evolution of ISDN by United States interests which are potentially affected; to provide a "clearinghouse" for dissemination of information on ISDN developments; and to provide a forum in which this Commission and its staff may be sensitized to ISDN ramifications which might not be readily apparent so that through our participation in and monitoring of ISDN developments we might better perform our role. The advisory committee processes of the Department of State, in which we and other governmental and private-sector entities participate, where many of the results of United States ISDN efforts have been presented and coordinated prior to presentation to the CCITT, have been influenced by effective participation

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[10] Notice, paras. 23 and 54.

[11] In this regard, we noted that the FCC had in 1981 established an intra-agency ISDN Coordinating Committee to monitor ISDN developments and that in view of the acceleration of international ISDN planning efforts this Committee had stepped up its efforts to remain abreast of developments by participating more actively in international and domestic meetings.

[12] Para. 4, *supra.*

[13] We also adverted to the possibility that the United States might not be able to conform to a technical specification that nations with a centralized telephone network could meet, for example a specification limiting the number of connection links in an end-to-end transmission. Notice, para. 5 and para. 44, n. 30. While it was implicit in this observation that were such a specification adopted internationally the United States would not implement it, our model was that the preferable approach would be to seek sufficient flexibility in any such technical specification at the time it is being prepared to accommodate our market structure. *Id.,* paras. 44 and 51.

on the part of the public. However, it appeared that many entities which will be significantly affected by ISDN in the future may have been unaware of the importance of these processes and the international processes to which they are designed to provide inputs, and have not committed the resources necessary to participate effectively. It was our hope that a collateral effect of instituting this inquiry would be to highlight to the industry the long-term ramifications of ISDN evolution, and to stimulate participation by those who will be affected. Again, it should be emphasized that we were (and are) not seeking to intrude upon or to impede the present ISDN process; rather we were seeking to promote more effective participation in this process by those who will ultimately be affected.

7. We have received comments in this proceeding which represent a broad spectrum of interests, specifically, those of user groups, exchange and interexchange carriers, enhanced service vendors, equipment manufacturers, the data processing community, and government agencies. As will be discussed below, there are areas of broad and virtually universal consensus: that ISDN represents a natural and desirable next step in the evolution of telecommunications; that our overall national pro-competitive policies are desirable and important, and that implementation of ISDN within the United States should be consistent with these policies;[14] that the FCC has tentatively defined an appropriate role for itself in the evolution of ISDN;[15] and that it is important to ensure that as ISDN as implemented the benefits of existing services, primarily dedicated leased channels, are not lost.

8. There is somewhat less consensus on specific Computer II-related issues which have arisen in the domestic and international ISDN planning processes. AT&T and the Bell Operating Companies argue for more flexibility in the application of Computer II, while others urge that the

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[14] Comments by AT&T and the Bell Operating Companies suggest that the specific Computer II implementations of the overall competitive framework might require refinement in an ISDN environment, but they are supportive of the overall thrust of Computer II to promote the competitive benefits of unregulated provision of customer-premises equipment and enhanced services.

[15] *I.e.*, one of participating in the formal and informal domestic and international ISDN efforts; *not* to become involved in the planning or design of ISDN, but rather to identify policy implications inherent in the process to those who perform such activities (and, if necessary, to highlight to the Commission these policy implications if they are not being dealt with consistently with national policy). There is broad consensus that the Commission should monitor the ISDN developments. The comments diverge on precisely how active a role the FCC should assume, ranging from minimal participation with subsequent policy review under as-yet undetermined processes (AT&T), through active participation and leadership to highlight policy implications of ISDN planning (Ma/Com and IBM), to active regulation through institution of rulemaking proceedings to complement ISDN planning (IDCMA).

Computer II policies are appropriate and that any reconciliation with ISDN planning which may be necessary should be accomplished through the introduction of additional flexibility in the ISDN concept.[16] The Computer II issues include: the treatment of network channel terminating equipment (NCTE) as unregulated customer-premises equipment, and the related absence of an appropriate ISDN interface to which unregulated NCTE might be connected; the treatment of protocol conversion and processing as provision of enhanced service (requiring structural separation of these activities and related facilities by AT&T and the Bell Operating Companies under Computer II); and the development of ISDN service classifications which are compatible with the basic/enhanced service dichotomy of Computer II.

9. Other rather technical ISDN issues were raised in comments because this proceeding represented an additional forum in which such issues might be raised, *e.g.*, whether ISDN should evolve to accommodate both active and passive bus structures at the interface, whether power should be provided from the interface towards the equipment or system connected therewith, whether the specified bit rates for switched ISDN channels adequately accommodate the capabilities of digital equipment presently used in the United States, whether efficiencies promised by newer digitized voice equipment might be foreclosed, bit rate specifications, etc.

10. Finally, it might be noted that the existence of this proceeding, and the preparation of thoughtful and comprehensive comments by the parties, appears to have had a salutary effect on ISDN evolution during its pendency. For example, issues of significant concern to virtually all commenting parties involved the continued availability of dedicated leased channels, the ability to select multiple service vendors in the multiple-vendor United States telecommunications market, and development of ISDN classifications which accommodate the basic/enhanced service dichotomy of Computer II (and its related structural and regulatory effects). Great strides were made in the ongoing ISDN planning efforts in Geneva, Switzerland, in Kyoto, Japan and in Brasilia, Brazil, to refine the evolving CCITT international ISDN recommendations to address these issues, in part because the United States delegations were sensitized to these issues and were adequately prepared by the comments to address them in depth.

11. In preparing this report, we have carefully read and analyzed the comments. In the interest of brevity, we shall not summarize them here,

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[16] One commentor, MarTech Strategies, goes so far as to recommend that in the light of the development of ISDN, the Commission institute a "Computer III" proceeding.

except to the extent that specific comments relate to our discussion.[17] The comments are a matter of public record in our docket files, and may be consulted by interested members of the public. As a practical matter, given the broad participation in this proceeding, it would appear that those most affected by ISDN have already done so. Where issues raised in the comments appear to have been resolved subsequently in the ISDN planning process we so note, but we emphasize that while CCITT planning documents prepared by its working groups and subgroups generally are finally adopted in the periodic Plenary Sessions of the CCITT, these documents are not final until then. Thus, even if approaches have developed which appear to accommodate the market structure and policies of the United States, it is still important to emphasize the significance of these approaches to this nation and we do so in this report. Furthermore, since comment on these recent developments has not been received in this proceeding, to the extent that they may not adequately accommodate United States interests the underlying objectives will be made known in this report prior to further consideration of these developments by the CCITT, and can be pursued further.

II. Discussion:

12. In this section, we discuss the responses to the questions we posed in the Notice, and, in the light of these responses, we highlight the critical ISDN issues of importance to this Commission and its pro-competitive polices.

A. Technical Issues Raising Policy Concerns

1. Addressing capabilities of ISDN:

13. It is clear from the comments that there are a range of technical issues being addressed in the domestic and international ISDN planning fora, most of which do not raise policy issues, but some of which do. A very clear example of a "technical" issue with broad policy implications relates to addressing (and routing) of messages. If it is assumed that a single service provider will be providing service in a given country, it is reasonable to arrive at a message-routing numbering framework which does not have the capability of addressing multiple providers of service. This approach has been followed, for example, in the international numbering plan for telephone services,[18] where, for the United States, there is assigned a single digit country code (0 or 1) followed by the normal ten digit national number. Multiple providers of telephone communications from international gateways to domestic United States

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[17] Appendix A lists the commenting parties and the abbreviations we use when referring to their comments.

[18] CCITT recommendation E.163.

subscribers cannot be selected under this approach. We note, however, that for public data networks a plan has been implemented which allows for the selection of alternative domestic data service providers.[19] Currently, an assigned four digit Data Network Identification Code (DNIC) is to precede an up to ten digit domestic network terminal number. In the case of the United States, about 30 such DNIC codes have been assigned for use with our normal ten digit national number code. We believe it important that the ISDN numbering plan not foreclose selection of multiple service providers.

14. We have had to face analogous issues domestically. For example, under the MFJ governing AT&T and the divested Bell Operating Companies,[20] (and which has been proposed to be applied somewhat similarly to other telephone companies which are not bound by the MFJ),[21] unequal dialing prefixes to reach some carriers are required to be employed until the nationwide United States telephone numbering plan is changed; at that time, equal abbreviated carrier selection (with the ability to pre-select a carrier of choice not requiring use of such a prefix) is to be built into the numbering plan. Thus, the "technical" specification of the United States telephone numbering plan has been viewed as having the effect, to some extent, of limiting competition among competing domestic providers of interexchange services. It is clear that there are significant benefits to the ability of ISDN users in the United States and worldwide to reach multiple carriers and service providers in the United States, and for that reason we view it as very important that the ISDN plan include sufficient flexibility to ensure that this result is not foreclosed technically through adoption of inflexible ISDN numbering/addressing specifications.[22]

15. We are gratified to note that it has been recognized that multiple vendor addressing is inherently required in an ISDN plan, not only to accommodate the multiple carriers and enhanced service providers of the United States market, but also to accommodate non-governmental providers of databases and local area network in those administrations where telecommunications is otherwise a governmental PTT function. Thus, the current ISDN recommendations drafted in Brasilia[23] set as an objective

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[19] CCITT recommendation X.121.

[20] United States v. Am. Tel. and Tel. Co., 552 F.Supp. 131, 226-34 (D.D.C. 1982).

[21] Notice of Proposed Rulemaking in CC Docket No. 78-72, Phase III, 94 FCC2d 292, 48 Fed.Reg. 26632 (June 9, 1983).

[22] Of course, the worldwide telephone numbering plan and the domestic implementation of a United States numbering plan appropriately did not accommodate a competitive market structure when developed; there was no competition at that time. We are raising this analogy for illustrative purposes, and not to suggest that the plan was improper.

[23] CCITT Study Group XVIII, Group of Experts on ISDN Matters, Brasilia, Feb. 13-24, 1984, I-Series Recommendations.

the establishment of a single worldwide ISDN numbering plan by enhancing recommendation E.163 and retaining the X.121 numbering structure. The draft recommendations also provisionally limit the international ISDN number to a sequence of fifteen decimal digits.[24] Since our current United States telephone network uses ten decimal digits (as does the TWX network), it would appear that an additional five digits (*i.e.*, 100,000 alternative selections) could accommodate sufficient multiple suppliers even though the additional five digits must be shared on a worldwide basis.

16. Thus, it would appear that reasonable flexibility could be attained to ensure that the fundamental numbering plan definition does not frustrate the workings of a multiple-vendor United States market. This will require that efficient coding techniques be incorporated into the numbering plan within the five digit constraint, so that sufficient numbers of alternative vendors are selectable. It would appear that effective United States participation in the appropriate CCITT Study Groups responsible for the development of further recommendations in this area will be essential. However, this is but the first step in movement toward implementation of ISDN in a manner which actually promotes a multiple-vendor environment.[25] Sequential or hierarchical coding techniques will be required in the international or domestic plan (or both) to permit calls to select among multiple service providers, and to select routing.

17. Selections of this nature may be based upon simple competitive considerations such as pricing, on technical capabilities such as the degree of enchancement which might be built into one or more enhanced ISDN networks which may form part of a given call, on the technical quality of various vendor's facilities and services (for example, error rate), or on modal technical limitations. One or more of these factors may control a routing/selection decision on a given call or group of calls. For example, there are differences between satellite and terrestrial facilities, economically and technically. The former has costs which are distance-insensitive and which may support some simultaneous point-to-multipoint transmissions more economically than terrestrial transmission. But, the satellite mode also has transmission delays. If transmission is largely unidirectional, these delays may be unimportant or unnoticeable. If transmission is conversational, these delays may be significant. From our perspective, it is desirable that subscribers have the ability to make decisions between

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[24] Subaddressing is also included in the draft recommendations which would permit an additional 32 decimal digits to pass from an origination to a destination. Special attention is drawn in the draft to the fact that the subaddressing is not considered part of the ISDN numbering plan, but rather that it is available for specific use between users.

[25] Creation of a flexible numbering plan is, logically, a necessary but not sufficient condition.

these modes on a given call or group of calls to optimize their communications, rather than for such decisions to be made for them through unnecessary technical limitations.

18. Thus, we endorse the comments of Comsat and ASC that unnecessary technical limitations should not be introduced in ISDN to foreclose the possibility of multiple satellite "hops" on a given connection. When we were confronted with an analogous claim in the mid-1970's that the public would not, for conventional voice communications, accept the delays of multiple "hop" service, we concluded that to the extent that there may be differences, users should have the opportunity to choose the service attributes they require, without being foreclosed from making such a choice. Satellite Facilities for Communications Services, 61 FCC2d 139 (1976). A similar principle should apply in the case of ISDN.

19. For such selection to be available to users, however, a numbering/routing plan must operate to permit networks to select one another and to be interconnected for through service when such a selection is made. This interconnection is inherent in the use of basic services to support an enhanced service since interconnection, largely of premises terminal equipment, is required between the facilities which form the enhanced service network and the underlying basic communications capabilities. This interconnection is also required more generally when a selection is to be made among competing basic and enhanced networks.

20. Additional work will be required domestically and internationally to arrive at a suitable plan for numbering/routing in ISDN, and to arrive at appropriate detailed procedures for effective interconnection of networks. It is hoped that the efforts at the Brasilia conference have set the stage for this additional effort.

21. Since this further effort has not yet been undertaken, at this juncture we can only emphasize the importance of the policy objective of routing/selection capabilities to ISDN implementation in the United States: just as "equal access' has proven to be one of the cornerstones of the restructuring of the telecommunications industry under the MFJ governing AT&T and the Bell Operating Companies[26] and comparable proposals for other telephone companies,[27] it will remain a major objective

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[26] N. 20, *supra.*

[27] N. 21, *supra.*, referencing our proposals for comparable "equal access" obligations to govern the non-Bell Independent telephone companies. The MFJ governing the BOCs imposes "equal access" obligations on the carriers serving approximately 80% of all subscribers in the United States. It might be noted that a pending consent decree which if entered would govern the GTE telephone companies would impose "equal access" obligations on the GTE companies similar to those of the MFJ, encompassing approximately 10% of all subscribers in the United States. Thus, if the GTE decree is entered, wholly apart from Commission action the carriers which serve 90% of all United States telephone subscribers (i.e., the BOCs and GTE) will be under "equal access"

as today's telecommunications evolves toward the ISDN concept. A key component of the "equal access" requirements of the MFJ, the pending GTE consent decree and our CC Docket No. 78-72, Phase III proposals, has been the requirement that users have the ability to select among competing interexchange and information service providers on a relatively equal dialing basis.[28] The routing/selection capabilities of ISDN can, at this early stage in the ISDN planning process, be structured to be consistent with this developed United States policy, and we commend the results of the Brasilia conference as a desirable first step in this direction.[29]

2. NCTE Issue:

22. A second "technical" issue which has policy implications relates to network channel terminating equipment, or "NCTE." In June, 1983, the Commission clarified that digital NCTE is customer-premises equipment within the meaning and policies of the *Second Computer Inquiry*, and that it therefore is to be provided on a competitive unregulated basis no

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obligations unless the FCC modifies these obligations; the carriers serving the remaining 10% of subscribers are subject to the outcome of our CC Docket No. 78-72, Phase III proceedings.

[28] As noted, when the nationwide telephone numbering plan is changed, preferential subscriber access to a pre-selected competitive carrier-of-first-resort will be permitted under the MFJ, provided that all competitors have the same access to this subscriber preselection process.

[29] The issues which will require further domestic (and/or international) study include: (1) whether "port"-type access involving 2-stage dialing will be sufficient, similar to our domestic ENFIA-type interconnection, under which a first network is interconnected with a second network no differently (for addressing purposes) than a termination on the first network, and additional addressing is then passed to the second network for further routing; (2) whether "escape code"-type access involving a special prefix or suffix will be required, similar to the MFJ's 10xx access (or to traditional domestic 1+ access to long distance and to implementation of the current international telephone numbering plan by special international dialing prefixes), under which a first network treats a call requiring interconnection to a second network differently than a termination on the first network; (3) whether some hybrid of the two procedures may be possible or desirable, i.e., 2-stage dialing which is not perceivable by subscribers because there are insignificant delays in the staging; (4) whether distinctions should be made between interconnection from or to basic networks, and interconnection from or to enhanced networks; (5) whether different addressing procedures for interconnected service and direct (single network) service represent unreasonable discrimination in an ISDN environment where the generators of address information will largely be digital equipment, and not manual dials, and longer codes for interconnected selection may not be perceivable by subscribers; and (6) whether there should be simplified addressing of information service providers, much as will occur for access to the networks of other carriers, rather than treatment of information service providers' network terminations no differently than those of end users.

differently than other customer-premises equipment.[30] As was shown in the diagram in Attachment III to the Notice herein, ISDN planning efforts have assumed that a device denominated the "NT1" will be provided as part of the loop facilities, and only the interface to that device, denominated the "T" interface, will be specified.[31] The "NT1" equipment, if located at a customer's premises, is NCTE.

23. Our NCTE decision as applied to ISDN implicitly requires that an interface to the input of the "NT1" be established. Stated alternatively, our NCTE decision requires that there be established an interface to the loop, to which customer-premises equipment (including any "NT1" device or device which includes the functions of the "NT1")[32] may be connected. At an earlier stage of the ISDN planning process such an interface was discussed (it was denominated the "U" interface), but this interface no longer appears in the CCITT ISDN planning documents.

24. Petitions for reconsideration of the NCTE decision are pending before us, filed by telephone carriers which make arguments which have also been made in this proceeding that the NCTE decision denies carriers necessary flexibility, and that it may serve as an impediment to supply and trade in "universal" terminal equipment which might be connected and used anywhere in the world (since the "NT1" interface would be uniform, stable, and independent of the characteristics of the loop facilities at any location). It is argued in comments in this proceeding that the carriers have sought to use the evolving ISDN plans in essence to support their position that the NCTE decision should be changed on

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[30] Petitions Seeking Amendment of Part 68 of the Commission's Rules, CC Docket No. 81-216, 94 FFC2d 5, 48 Fed.Reg. 29014 (June 24, 1983) (hereafter cited as the "NCTE decision").

[31] Indeed, as is shown in this diagram, it has been assumed that much of the equipment which is to be connected with the termination of an ISDN loop is to be connected through additional terminating equipment, i.e., the "NT2". Some administrations have assumed that they will be providing both the "NT1" and "NT2" equipment, perhaps combined in a single unit. Thus, the "T" interface itself will not necessarily be supported in these administrations' service areas.

[32] It might be noted that the flexibility to include a terminating function within an integrated terminal, rather than in a separate equipment (*e.g.*, NCTE) may be very desirable to equipment manufacturers. Our Part 68 registration program accords analogous flexibility to equipment manufacturers which have the options either of registering terminal equipment, of using unregistered equipment behind registered protective apparatus, or of registering through abbreviated procedures terminal equipment which incorporates such protective apparatus. Similarly, our Part 68 rules governing system wiring include "protected" wiring categories which acknowledge protective functions of equipment which are already present. Obviously, these approaches promoted efficiency since additional, unnecessary protective capabilities were not required to be added to equipment if already present. Analogous efficiencies are possible if equipment used with ISDN can incorporate the functions of the "NT1" without employing an additional discrete "NT1" unit or subunit.

reconsideration.[33]

25. We do not here rule on the merits of these arguments, except to note that the NCTE decision has been made and is in effect. Furthermore, the NCTE decision established waiver procedures under which carriers might be permitted to supply NCTE inconsistently with the general treatment of customer-premises equipment under the Computer II rules. However, the predicate for any such waiver which might issue was that under no circumstances would the NCTE be a carrier monopoly: customers must have the right and ability to supply their own NCTE should they desire to do so, even if a waiver were granted affecting the supply of such equipment by carriers. And, we emphasize that the Commission's fundamental policy of prohibiting restrictions on customer provision of premises equipment where such supply can be done in a manner which is "privately beneficial without being publicly harmful" is not recent. It was established in the *Hush-a-Phone* and *Carterfone* decisions[34] and affirmed in the Docket No. 19528 proceedings which established the equipment registration program.[35]

26. Thus, it appears clear that an interface to the loop facilities (i.e., at the input to the ISDN "NT1") will be required to facilitate the provision of equipment or capabilities comparable to the "NT1" by subscribers in the United States. Since ISDN planning has been directed towards arriving at relatively uniform international recommendations governing ISDN, it may prove appropriate for the CCITT to arrive at a suitable definition of a "U" interface to facilitate this, but if the CCITT fails to do so one or more appropriate domestic "U" interfaces could be arrived at for use in the United States, through carriers' initiatives in their tariffs and technical

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[33] IBM, for example, observes that AT&T, the BOCs and GTE have argued in this proceeding that to resolve any inconsistency between our NCTE decision (which would treat the "NT1" as unregulated premises equipment) and the ISDN international working documents (which would treat the "NT1" together with the carrier-provided loop), the better course might be to change the NCTE decision. As IBM properly notes in its Reply comments: "This proceeding is not the appropriate forum for reconsideration of the *Digital NCTE* decision." Indeed, the model adopted in our Notice herein on this and similar issues was that: "The most practical approach to planning an ISDN model would seem to be one that accommodates the interests of U.S. telecommunications service providers, equipment manufacturers and users during the international planning phase." Notice, para. 44.

[34] Hush-a-Phone Corp. v. United States, 238 F.2d 266 (D.C. Cir. 1956), *on remand*, 22 FCC 112 (1957); Carterfone, 13 FCC2d 420, *recon. denied*, 14 FCC2d 571 (1968).

[35] *E.g.*, First Report and Order, 56 FCC2d 593 (1975), Second Report and Order, 58 FCC2d 736 (1976), *aff'd sub. nom*, North Carolina Utilities Comm'n v. F.C.C., 552 F.2d 1036 (4th Cir. 1977), *cert. den'd*, 434 U.S. 874 (1977); Third Report and Order, 67 FCC2d 1255 (1978). *See also*, Implications of the Telephone Industry's Primary Instrument Concept, 68 FCC2d 1157, 1170-72 (1978) (discussion of a claim analogous to the carrier's claim in this proceeding and on reconsideration of the NCTE decision that carrier-provided equipment is necessary for testing purposes).

references, through voluntary standardization activity, or, if related to protection of the facilities from "harm", through Commission rulemaking processes (i.e., our Part 68 processes). To avoid potential confusion and inconsistency of domestic implementations of ISDN with the international recommendations, it would be desirable for the international ISDN planning efforts to include sufficient flexibility as they evolve to accommodate the "U" interface concept. Therefore, we urge that this matter be pursued in the continuing ISDN planning efforts.

3. *User/Network Interface:*

27. Several comments argue that the draft CCITT recommendations specify a user/network interface which is, in their view, needlessly complex.[36] There are two dimensions to this concern. First, to the extent that the "interface" in this context is thought of as encompassing a requirement that functions be included within the customer-premises equipment to be connected to the loop facilities (including "NT1" and "NT2" equipments or their functions), unnecessary costs could be imposed on the customer-premises equipment to the extent that it includes functions which are not used, but which might be included in the ISDN recommendations to support a full range of ISDN services.

28. This approach would be at odds with our consistent Part 68 approach to governmentally-mandated equipment standards (as opposed to voluntary ones adopted for other purposes). The Part 68 requirements (and, in some circumstances, comparable ones contained in carrier-initiated tariffs) specify only technical limitations which prevent "harm," and not ones which address the efficiency or utility of the connection. A simple analogy will demonstrate this. Our Part 68 rules impose voice-band signal power maximums (for other than live voice) to limit the potential for interference with others' channels (loop and interexchange); they do *not* impose signal power minimums. Obviously, if the signal power is insufficient, communications will not occur. The marketplace, and voluntary standardization to some extent, have ensured that terminal equip-

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[36] *E.g.*, comments of ICA (which urges adoption of a simple basic interface capable of accommodating both switched and non-switched services) and IBM (which argues that the ISDN interfaces have been structured with relative universality for a full range of ISDN services, with the result that they are needless complex and include unnecessary functions when subscribers in fact choose to utilize only a subset of the ISDN services available). IBM is concerned that a complex ISDN interface might not prove to be as well suited for transmission of data as for voice. When this concern is read against its substantive comments in favor of non-modification of our NCTE decision, it is clear that IBM is restating in an ISDN-focused manner its fundamental concern during the course of the Second Computer Inquiry that inclusion of functions in the networks which support data communications could, in some circumstances, adversely affect the efficiency of data processing unless any limitations inherent in these functions can be avoided by users (and the suppliers of the equipment they use).

ment generates sufficient signal power to be useful. If ISDN has a range of capabilities and the user chooses only to utilize some of them, an interface to the full range of capabilities would not be necessary.[37] Just as our Part 68 processes would not require the user's equipment actually to be capable of communicating, ISDN recommendations should not be interpreted as requiring the termination equipment to include functions which are not actually to be used by the termination.[38]

29. A second dimension to this concern relates to ISDN planning which would limit the uses to which the ISDN channels might be put. For example, ISDN includes a "D channel" primarily intended to be used for signalling purposes. But, there is sufficient bandwidth on this channel as currently envisioned to support other communications when it is not being used for signalling. If the channel is specified as solely usable for signalling, and if this specification is viewed by carriers as binding on their ISDN implementations or ultimate offerings to the public, it might not be made available for alternative uses. While the Commission would probably view this issue as a use-of-service restriction, it might be framed as a "technical" one through the vehicle of specification of the network interface. Furthermore, hardware and software limitations at a central office could through technical means limit alternative uses of a "D channel" if, for example, the central office termination of that channel were connected solely to signalling equipment.

30. We do not have sufficient information before us on this second dimension to reach a judgment on the merits. Telephone loops today have far more bandwidth than the nominal 4 KHz voice-band transmissions that they are generally used to support, yet it has not been argued that we should mandate that carriers make the additional bandwidth available to subscribers; to do so would engender investment in additional facilities by carriers. Implementation of ISDN implicitly involves use of this band-

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[37] IF NCTE were to remain as a carrier monopoly (as the CSU was prior to our adoption of the NCTE decision), carriers might supply only an overly costly universal NCTE unit even to those subscribers who actually would use only a subset of its capabilities. The comments here are raising the related issue that even if others are permitted to supply NCTE, they should not be required to include functions in their NCTE which are unnecessary. In our analogous Part 68 processes we have sought to ensure that unnecessary equipment not be required, for example by acknowledging the protective effects of circuitry already present in equipment, n. 32 *supra,* and we believe that a similar result should obtain here.

[38] Similarly, there has been much discussion within the international ISDN groups as to whether the terminations of ISDN at subscriber premises should use active or passive bus configurations. *See, e.g.,* comments of the BOCs at 15. Our treatment of the NCTE issue ensures that users will have the flexibility to utilize either configuration as they wish, to the extent that the system design and architecture of the loop admits of such flexibility. Were sole carrier supply of the ISDN NCTE to be permitted, the design selected for the NCTE might foreclose this flexibility.

width, but it involves complex cost/benefit tradeoffs in the design and costs of loop plant, central office facilities and premises equipment, and very complex considerations of how to evolve towards ISDN when present facilities are largely 4 KHz analog ones. It may be that use of the "D channels" for other than signalling might be relatively inexpensive; but it also may be that restriction of these channels to signalling might promote a less costly transition from existing offerings to ISDN. This information has not been provided, and we regard this issue as one which might be pursued in the future.[39]

B. Basic/Enhanced Dichotomy Under Computer II

31. In this section, we address the ISDN issues which relate to our dichotomization of basic and enhanced services in the *Second Computer Inquiry* ("Computer II").[40] In Computer II, we established a dichotomy between basic communications services which are the subject of regulation under Title II of the Communications Act, and enhanced services which are not subject to such regulation. Section 64.702(a) of our rules defines enhanced services as:

> services offered over common carrier transmission facilities used in interstate communications, which employ computer processing applications that act on the format, content, code, protocol or similar aspects of the subscriber's transmitted information; provide the subscriber additional, different, or restructured information; or involve subscriber interaction with stored information.[41]

32. As we noted in our decision on *Communications Protocols under Section 64.702 of the Commission's Rules and Regulations* (hereafter, "Protocol Decision"),[42] the definition of enhanced services is fundamentally predicated on the concept that a basic service is an offering of transmission capacity between two or more points suitable for a user's transmission needs, and subject only to the technical parameters of fidelity or distortion. An enhanced service does more than this. It alters the subscriber's information or electrical signals, or it involves subscriber interaction with stored information.[43]

33. The primary effect of classification of an offering as basic or enhanced is that an enhanced service is not subject to regulation under Title II of the Communications Act. As we explained in the Notice herein, before deregulating enhanced services we considered the potential effect of such deregulation on competition and the public interest objectives of

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[39] See section II.E *infra.*, where we discuss future ISDN processes.

[40] We have previously addressed the NCTE-related ISDN issue which relates to our deregulation of customer-premises equipment in Computer II.

[41] 47 C.F.R. Chapter I § 64.702(a).

[42] Memorandum Opinion, Order and Statement of Principles in Gen. Docket No. 80-756, 95 FCC2d 584, 48 Fed.Reg. 54351 (Dec. 2, 1983).

[43] Id.

the Communications Act, and we structured our treatment of enhanced services to ensure that provision of such services by common carriers in competition with non-carrier enhanced service providers would be fair and not involve improper cost-shifting. Thus, conditions were placed on all common carriers to assure that basic service providers which also offer enhanced services would not gain unfair competitive advantage over enhanced service providers that did not own underlying transmission facilities. Common carriers may offer enhanced services, but only if: (1) the costs of their unregulated enhanced service offerings are not borne by subscribers to their basic services; (2) all facilities-owning carriers continue to offer such basic transmission facilities pursuant to tariff,[44] and take basic facilities to support their own offerings of enhanced services on the same basis as competing enhanced service providers; and (3) common carrier tariffs do not offer enhanced services.

34. A secondary effect of the classification of an offering as basic or enhanced relates to the additional safeguards made applicable to AT&T and its affiliates (including its then-affiliated BOCs) in our Computer II decisions, and subsequently retained for the divested BOCs in our decision in CC Docket No. 83-115.[45] AT&T and the BOCs have been required to establish separate entities to offer enhanced services (and terminal equipment), and they must maintain structural separation between the separate entities and their regulated operations, including a requirement that the separate entities take transmission facilities under tariff and not commingle the facilities which support basic and enhanced services. In the protocol proceeding, we sought comment on whether carriers subject to structural separation of basic and enhanced offerings and related facilities should be permitted to associate certain code and protocol conversion capabilities with the facilities used to support the offering of basic service.[46] This issue was resolved in the Protocol Decision, and the resolution has bearing upon this proceeding because ISDN planning to date has involved a mixture of services which would be classified as basic and enhanced under the Computer II classifications.

35. It was argued in a number of comments that ISDN planning efforts had, at the time the comments were prepared, envisioned ISDN as encompassing a melange of basic and enhanced offerings which appeared largely inseparable. As we observed in the Notice, CCITT planning

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[44] This requirement is, of course, subject to our treatment of various carriers through forebearance in our Competitive Common Carrier proceedings in CC Docket No. 79-252, and to our proceedings in CC Dockets No. 83-1147 and 83-1375 (and other proceedings) investigating revisions in the regulatory treatment of AT&T in a post-divestiture environment.

[45] Bell Operating Companies, 95 FCC2d 1117, 49 Fed.Reg. 1190 (Jan. 10, 1984) *petitions for recon. pending.* Structural separation remains applicable to AT&T.

[46] *Notice of Inquiry,* 83 FCC2d 319 (1980).

documents[47] classified ISDN in two categories of offerings, the so-called "bearer" services which appeared largely to include what we would term basic services under Computer II, and the "telecommunications" services which included operations on protocols which we would classify as enhanced under Computer II. We sought comment on whether this bearer/telecommunications split approximated the basic/enhanced dichotomy of Computer II. While there is some disagreement in the comments on this point,[48] it appears that such an approximation was not present.

36. Most fundamentally, the "telecommunications" category, which largely involved enhanced services, also included the simple public switched network offerings which we clearly have termed basic in Computer II, i.e., MTS telephone services and telex telegraph services. Thus, while the "bearer" category was largely a basic one, the currently most prevalent basic services (MTS and telex) were included in the "telecommunications" category (which otherwise was largely an enhanced service one). In these circumstances, a number of comments claimed that the international ISDN planning efforts were inconsistent with Computer II, and that absent change in either the ISDN plans or the Computer II requirements and classifications, ISDN could not be implemented in the United States as then envisioned.

37. Apparently because of this, the telephone companies in essence used their ISDN comments as a vehicle to argue that a change in the current Computer II rules may be warranted in an ISDN environment.[49] In its comments, IBM argued that the Computer II policies are appropriate, and that ISDN planning should include sufficient flexibility to

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[47] *E.g.*, CCITT Draft Recommendation I.200, paras. 1.3.2-1.3.3.

[48] AT&T characterized the "bearer" services as analogous to basic services (without dwelling on the point, made *infra.*, that the most prevalent basic service, MTS, was not classified as a "bearer" service). American Satellite Co. (ASC) concluded that the bearer/telecommunications approach can readily accommodate the market structure and policies of the United States. However, IBM and other commenters strongly disagreed with this conclusion.

[49] *See e.g.*, AT&T comments, app. p. 13 ("A provider of an enhanced services network should be able to perform any code or protocol conversion . . . . Providers of basic services will need to perform the same or similar 'networking' conversions to efficiently and economically interconnect . . . . "); Comments of the BOCs, pp. 21-22 ("From a user's perspective, it would be more efficient to allow a variety of devices/networks to use ISDN and to have it provide the necessary compatibility. The ability for ISDN to provide for various devices/networks may be required both during transition to and in a mature ISDN network.") *See also*, comments of Northern Telecom, an equipment supplier, urging that the Computer II policies be changed on the grounds that they will "significantly restrict the ability of local exchange carriers . . . to offer ISDN network services without affording corresponding benefit to the public", Northern Telecom comments, 11.

accommodate the Computer II policies.[50] While some flexibility in the application of our Computer II policies may be warranted, and while we believe as discussed below that these policies include flexibility in the protocol area (the focus of the ISDN Computer II arguments, see the discussion *infra.* of our Protocol Decision), this inquiry is not a rulemaking proceeding and it cannot result in a change in the Computer II rules. Our Computer II rules and policies are established, and properly should be accommodated in the ISDN planning efforts.[51]

38. In our Protocol Decision, we observed that the definition of enhanced services encompasses protocol changes that are manifested at the outputs of a carrier's network; any such operations which are performed wholly within the carrier's facilities do not fall within the enhanced service definition. Thus, a carrier is free to change protocols within facilities which implement basic service so long as the input and output protocols are the same. However, carriers subject to structural separation might wish to associate other protocol operations with basic services without complying with structural separation, and while we concluded that the overall Computer II dichotomization need not be changed, we acknowledged that such a result might be warranted in certain cases.

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[50] IBM reply, 17-20 (discussing IBM's perception of the thrust of the comments of AT&T, the BOCs and Northern Telecom as seeking revision of the Computer II rules, and the effects of our more recent Protocol Decision, addressed *infra.*). IBM's concern that the carriers might seek to use the evolving ISDN planning efforts to create undesirable pressure for change in the existing Computer II requirements, if the ISDN plans are not sufficiently flexible to accommodate our Computer II policies, appears to have some basis. In its comments, AT&T concluded that while it believed that most CCITT recommendations could be developed to include sufficient flexibility, there could be a conflict necessitating a departure by the United States from the international recommendations. In AT&T's view, the desirability of such a departure would involve a balancing of the benefits and disadvantages thereof, and such a balancing "may disclose that certain parochial U.S. policies may require appropriate modification in order to accommodate other countervailing U.S. interests." AT&T comments, App. at 23. *See also,* reply comments of Mountain States, Northwestern Bell and Pacific Northwest Bell (arguing for the ability to include a full range of operations on protocols in their facilities and offerings).

[51] As is discussed below, we believe that changes made at the Brasilia meeting have gone far toward accommodating the basic/enhanced dichotomy of Computer II. Furthermore, we stated in the Protocol Decision that if carriers subject to structural separation are (by waiver) permitted to commingle protocol functions with the facilities that support basic service, they would be allowed to do so only on condition that the underlying basic offering remains available, unencumbered by these protocol conversion functions, a requirement which governs all carriers, and not only those subject to structural separation. In view of this, even if such flexibility is granted it would still be important that ISDN be implemented in the United States in a manner which makes basic transparent offerings available.

39. First, we clarified that while the first major clause of the enhanced service definition is grounded on the concept of "transparency", *i.e.*, reproduction at the far end of a connection of the electrical signals introduced at the near end, when this definition was adopted the Commission made clear that it was not intended to reach those forms of protocol conversion or processing intrinsically necessary for switched message services to be provided. Thus, we clarified in the Protocol Decision that protocol conversion or processing (or "network processing") necessary to alert a network that a terminal is ready to generate or receive a call (off hook-type signals), to inform the network of the destination of a call (dialing-type signals), and to alert a network that a call has ended (on hook-type signals) are outside the definition of enhanced services, and may properly be associated with basic service without changing its nature and with enhanced service without changing the classification of the latter as unregulated under Title II of the Communications Act. We observed that this result is applicable not only to complete calls on public switched basic services such as MTS and telex, but also to individual messages which are, in essence, individual calls themselves (e.g., to packets in a packet-switched network). Protocol Decision, paras. 15 and 28.[52]

40. Second, we observed that the literal definition of enhanced services could be implicated if new technology is deployed on some but not all loops, and calls are made between the two groups of loops.[53] In such circumstances, there would be a net protocol conversion between the loop terminations. In view of our policies and statutory mandates favoring the introduction of new technology in common carrier services, we concluded that it is important to ensure that this potential result does not create disincentives for introduction of efficient new technology. Accordingly, in circumstances involving no change in an existing service, but merely a change in electrical interface characteristics to facilitate the transitional introduction of new technology, we resolved to act favorably and expeditiously on petitions for waiver of the Computer II requirements to ensure that new technology to implement an existing service can and will be employed.[54]

[52] *See also*, AT&T (Basic Packet Switched Service), 94 FCC2d 48, FCC 83-221, released May 26, 1983 (granting AT&T authority to install and operate equipment to support provision of packet-switched service as a basic service within the meaning of Computer II).

[53] An example used in the Protocol Decision was that digital signals might be utilized on some, but not all, loops as digital loop technology is introduced in the telephone network. A call between a digital termination and a traditional analog one would involve a net protocol change between the ends of the call. A similar circumstance may arise as ISDN is transitionally introduced.

[54] Thus, there would be a presumption in favor of grant of a waiver in these circumstances.

41. And third, we concluded that it may be appropriate to authorize association with basic facilities of other protocol operations by those carriers subject to structural separation under certain circumstances. As a general matter, we concluded that these circumstances should be treated by waiver to ensure that the underlying Computer II policies are not inappropriately eroded through presently unforeseeable effects of general rules which we might adopt in this area.[55] Among the circumstances identified which would warrant grant of such waivers were: (a) conversion of protocols to facilitate interworking of networks, where the subscriber terminations of each network operate on the same protocol;[56] and (b) protocol conversions where the performance of the basic network can be improved materially only by provision of protocol conversion in the network, and not where others can do so outside the network. We concluded that treatment by waiver under the Protocol Decision would be accorded only under the first major clause of the enhanced service definition ("processing applications that act on the format, content, code, protocol or similar aspects of the subscriber's transmitted information"), and not the remaining two major clauses thereof ("provide the subscriber additional, different, or restructured information; or involve subscriber interaction with stored information"). And finally, we concluded that such waivers will be granted on condition that the underlying basic facilities and services, unencumbered by these protocol operations, remain available so that the associated protocol operations do not become a limitation on the ability of others to perform such functions themselves should they desire to do so.[57]

42. The requirement that underlying basic offerings continue to be available to the public is a fundamental Computer II policy, applicable not

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[55] However, unlike the case of introduction of new technology solely to implement an existing service, there would be no presumption in favor of granting a waiver. In view of AT&T's argument in the protocol proceeding that a waiver procedure could introduce delay, uncertainties and possible inconsistencies which might hinder technological planning, we observed that a waiver may be sought at any stage of the planning process. Also, while public comment would be sought on any waiver request, we resolved under normal circumstances to address waiver requests relating to protocol processing within sixty days.

[56] We noted that this circumstance might often be present in the case of interconnection of national networks for international service, where the protocols on one network are converted to those of the other network, or where protocols on both networks are converted to an intermediate protocol for interworking, *e.g.*, the X.75 protocol for interworking of packet-switched networks.

[57] In petitions for reconsideration, it has been observed that in some circumstances this "unbundling" requirement may not be feasible, for example where there is post-divestiture interconnection of the BOCs' facilities with those of AT&T on an intermediate interworking protocol and the loop protocol is not available. Prior to divestiture, this intermediate protocol change was wholly within the facilities of AT&T and its affiliates (the BOCs), and had no bearing on the definition of enhanced service.

only to carriers subject to structural separation, but to all carriers.[58] Therefore, it is important that the ISDN plans include sufficient flexibility to accommodate the regulatory structure of the Communications Act which, as interpreted by Computer II, limits Title II regulation to basic services. In this regard, the results of the recent Brasilia meeting may have created such flexibility.

43. At Brasilia, the previous "bearer" and "telecommunications" service classifications were modified in a manner which appears better to accommodate the basic/enhanced service dichotomy of the United States — but without in any way impeding the flexibility of other administrations to pursue different polices. Working draft I.200 now establishes a single overall ISDN service category, "telecommunications", which includes two subcategories, "bearer" services and "teleservices". The "bearer" services category now includes together services such as MTS, telex and private line which would be classified as basic under the Computer II decisions, although this category also encompasses protocol operations which might constitute some "bearer" services as enhanced. The "teleservices" category includes operations on protocols (and possibly databases) which, if provided over common carrier facilities in the United States, would classify the offerings as enhanced services.

44. While it appears that not all of the offerings now encompassed under the "bearer" category would be basic, the changed ISDN definitional structure at least now appears to treat together the services which we would classify as basic, minimizing potential conflict between the international ISDN efforts and domestic Computer II policies. Yet, no administration is foreclosed from including (or authorizing the inclusion of) any "teleservices" and other functions in its telecommunications facilities and offerings should it so desire. Thus the result in no way violates comity by imposing United States policy on other administrations.[59] We are gratified by this desirable change made at the Brasilia conference as it appears to create an ISDN structure to which United States telecommunications can conform consistently with United States policy.

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[58] Notice, para. 28, *citing* Computer II reconsideration, 84 FCC2d 50, 75, n. 19 (1980). Thus, our treatment of this issue is independent of the nature and degree of structural separation which might be imposed on specific carriers.

[59] Our consistent approach to the application of our Computer II policies to international communications has been that these policies govern only the United States participants. Foreign correspondents are free, within their own facilities, to implement any functions they may choose to implement without affecting the classification of the offering by a United States entity based on the service it provides to the interface with its foreign correspondent. And, to the extent that a domestic carrier must convert its domestic protocols specially for interworking with a foreign correspondent, we have created a mechanism in the Protocol Decision under which such conversion may proceed.

C. Use of the ISO/OSI Model

45. ADAPSO argues at length, as it and others did during the course of the protocol proceeding, that while the Open Systems Interconnection (OSI) model may useful as a starting point for designing an ISDN network architecture, it should be used neither to draw distinctions between basic and enhanced services, nor to determine those services that must be performed as part of the network and those which may be offered separately.[60] We reached a similar conclusion in the Protocol Decision.

46. A potential problem with use of the OSI hierarchical model as a basis for the design of ISDN communications offerings, which was raised analogously in ADAPSO's comments on the inadequacy of permanent virtual circuits as a substitute for dedicated leased circuits,[61] is that the network processing of protocols invoked as the OSI hierarchy is traversed may serve as a limitation on the use of the information transmission capabilities made available to users. The OSI model involves great agility at each step of its hierarchy, but to some degree communications efficiency could be sacrificed in the achievement of this agility by the requirement that each layer of the OSI model be traversed sequentially. It is not our function to make the design choices which are involved in a decision whether or not to utilize the OSI model as a basis for design. We note that while the OSI model has been used as a starting point for configuration of ISDN architectures, proposals that considerably modify or interpret the model have been presented for ISDN planning.[62] To the extent that this model drives the design choices of carriers in implementing what we would classify as basic services (including the processing associated with call initiation, routing, flow control and cessation which we clarified in the Protocol Decision as associable with basic service), the carriers are free to make such choices. Implementation by enhanced service providers of the OSI model is their choice, since they are not regulated. To the extent that the industry might wish to affect the course of any such CCITT recommendations, it is free to participate in the advisory committee processes of the Department of State, in domestic voluntary standardization groups, or in the CCITT directly (if it has RPOA or SIO status) under the ISDN Joint Working Party coordination procedures.

47. But, the potential that implementation of the OSI hierarchical model (or any other hierarchical structure) may be less than ideal for specific circumstances or offerings underscores the importance of our underlying Computer II policy that basic offerings, which can at the

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[60] ADAPSO comments, 27-28; ADAPSO reply, 18-19. *See also,* AAR comments at 4; ADCU comments at 6-7; IBM comments at 11-14.

[61] This issue is addressed separately *infra.*

[62] *See,* CCITT Draft Recommendation I.311, ISDN Protocol Reference Model.

option of a user or service provider support a hierarchical protocol model like the OSI model or another model, remain generally available. We are committed to the policy that basic services be improved through the introduction of new technology, including public switched services (which are the most prevalent basic services available to, and used by, the public). Public switched telecommunications services have efficiencies, through the sharing of common facilities. But, as discussed in the next section, there are also efficiencies associated with the use of dedicated private line services. And, if it develops that those that implement ISDN using a specific control, signalling or other model provide less efficient communications capabilities, the continued availability of unencumbered basic offerings including private line will ensure that other approaches may be used. Absent this policy, if it were to develop that implementation of the OSI or other architecture were undesirable or inappropriate, no alternatives might then be available.

D. Dedicated Private Line (Leased Channel) Services

48. At the time the Notice was adopted, it was unclear whether the ISDN planning efforts to date were directed toward a conceptualization of ISDN which would replace dedicated private line (or leased channel) services, or whether ISDN would develop along with traditional private line offerings. As a subelement, ISDN included "permanent virtual circuit" offerings, and in the Notice we requested comment on whether permanent virtual circuits might be an adequate substitute for dedicated private line offerings.

49. A dedicated private line is available at all times for its user's use, and it does not require use of a routing protocol within the telecommunications network, or with attached terminal equipment, for its use. In contrast, a number of alternatives are available which appear initially to be somewhat like private line (insofar as "dialing"-type routines are not needed to set up a channel on request). These alternatives, which NTIA in its comments terms "demand" leased circuit offerings (including the "permanent virtual circuit" one upon which comment was sought in the Notice herein) do not involve the provision of dedicated circuits. They involve use of facilities shared among a multiplicity of users.

49a. Virtually all of the comments and replies stress the importance of maintaining the availability of dedicated private line offerings (and in some cases, only analog ones), notwithstanding the creation of new ISDN alternatives, for various reasons. Because this issue proved so important to those filing comments, in this section of our report we are specifically summarizing the points made as a prelude to our discussion of our perception of this issue.

50. But, by way of introduction, it is important to note that there was some conceptual confusion in the comments, caused by the way we

framed this issue and by some ambiguity in the CCITT ISDN planning documents at the time the comments were prepared. In more recent planning documents, ISDN is envisioned as encompassing two groups of offerings, circuit-switched offerings (including non-switched "permanent" or dedicated offerings) and packet-switched offerings. The circuit-switched category has three subelements: immediate service (i.e., public switched circuits switched together for the duration of a call upon demand, much as MTS operates); reserve service (i.e., advance reservation of a circuit-switched circuit to ensure its availability during the prearranged time period); and permanent service (channels which bypass circuit-switching capabilities). The last of these is dedicated private line or leased circuit service, and since it is now clearly encompassed in the ISDN planning documents, the fundamental question whether substitution of new alternatives to dedicated private line would adequately serve users' needs has been answered: it is not contemplated that dedicated private line offerings will necessarily be discontinued as a consequence of the emergence of ISDN.

51. The packet-switched category currently has two primary subelements: immediate service, and permanent virtual circuits. However, the distinction between these is not the same distinction as arises in the circuit-switched category, as both of these are switched services. In packet-immediate service, an initializing packet is used to inform the packet network of the ultimate destination of ensuing packets (including full destination address information), and the network returns a virtual circuit number to be prepended to each ensuing packet which consumes less overhead than transmission of the entire destination address; in essence, the virtual circuit number is an abbreviated "dialing" code to be used for the duration of the call on a packet-by-packet basis. In packet-permanent service (*i.e.*, permanent virtual circuits), the virtual circuit number is preassigned to the subscriber and an initializing packet is unnecessary. Thus, when we requested comment on the comparability of only one of the packet-switched subservices (permanent virtual circuits), we evoked comments not only on the fundamental question of whether there is a continuing need for dedicated private line services, but also on whether any packet-switched offering is comparable with private line, or whether any other "demand" leased line alternative is comparable with private line. This mixture of conceptual approaches is evident in the comments summarized below.

1. Comments on Continued Availability of Dedicated Private Line Offerings:

52. While AT&T and the BOCs claimed that the evolution of ISDNs will not preclude private line alternatives,[63] the comments of others indicated that, when they were prepared, there was widespread uncertainty on this point. In response to these comments, summarized below, AT&T asserts that "[s]o long as there is a demand for private leased lines, whether analog or digital, a corresponding service will be provided" and "will remain available in the United States."[64] GTE agreed with many of the comments that private lines will continue to be required for certain user applications, however it saw no need for FCC action at this time to preserve the continued availability of such private line services.[65] The noncarriers, however, were somewhat less sanguine in their comments.

53. The ICA observed that ISDNs may provide desirable alternatives to dedicated private line offerings. However, it strongly favors the retention of dedicated offerings due to performance, network access and economic considerations. However, ICA found it difficult to comment on whether virtual private circuits would be an adequate substitute for dedicated private line in the absence of a concrete proposal.

54. IBM expressed concern that a movement toward integrated networks which are essentially switched networks could restrict the availability of dedicated channels thereafter, and that ISDNs may not make available non-switched services with the same high quality as existing digital private line offerings such as Dataphone Digital Service (DDS).[66] In IBM's view, dedicated private line offerings will continue to be

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[63] AT&T comments, App. at 21; BOC comments, App. at 11 (dedicated channels will continue to be available to the extent that there is marketplace demand therefor after implementation of ISDN). *See also*, GTE comments, 51 and Northern Telecom comments, 16. *But see*, reply comments of IBM at 22-24 (arguing that despite these assurances the level of definition in the draft ISDN recommendations relating to leased circuits is incomplete, with only limited discussion of the provision of dedicated leased circuits); reply comments of ARINC at 5-9 (noting the suggestion by the BOCs in their comments that permanent virtual circuits could replace private lines, and that only "certain" private networks may be more economically provided by "semi-permanent connections" within the ISDN). IBM notes that the draft recommendations indicate that provision of multipoint attachment — a key requirement in IBM's view — is only an item for future study.

[64] AT&T reply, 16. AT&T noted that there was uncertainty as to the continued availability of private leased lines within other countries. It asserted that this is an issue which the United States CCITT representatives can address before international bodies, and that they may "very well find sufficient support abroad to preserve such services indefinitely."

[65] GTE reply, 10.

[66] Thus, IBM addressed both circuit-switched and packet-switched alternatives to dedicated private line services.

desirable in an ISDN environment because these offerings provide superior performance, flexibility and economic characteristics. For example, multiple devices may be attached to a leased channel, which significantly reduces users' costs and improves operating efficiency by reducing the number of physical interface arrangements needed to support user applications.[67] Also, leased circuit networks can set up calls faster than ISDNs setting up permanent virtual circuits because ISDNs are primarily designed to support public switched services such as MTS. Furthermore, IBM argued that dedicated private line offerings are more susceptible of security controls because the physical routing of the circuits may be controlled, and because full flexibility is available in encryption apparatus which might be used with the terminal equipment connected therewith to encrypt all of the user's information; in IBM's view, packet networks (such as are envisioned in an ISDN) can only encrypt the data portion of a packet on an end-to-end basis. In sum, IBM argued that permanent virtual circuits are not an adequate substitute for dedicated private line offerings because: (a) they have poorer performance characteristics in terms of access time and network delay; (b) they require conformance to a specific protocol for attachment to and use of the service;[68] and (c) they generally depend upon volume charging rather than a flat rate charging plan.

55. ARINC contended that substitution of permanent virtual circuits for dedicated private line offerings could conflict with United States telecommunications policies in favor of cost-based ratemaking. In ARINC's view, usage-based pricing of permanent virtual circuits would be less cost-based than the flat-rate pricing of dedicated channels mandated by FCC ratemaking decisions and by the MFJ governing the BOCs.[69]

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[67] Of course, our approach to the treatment of NCTE in ISDN (e.g., the "NT1" and "NT2") may create the possibility that similar efficiences may be gained by users of ISDN alternatives to private line, since users would be free, to the extent that the ISDN implementation and architecture does not foreclose this possibility, to place multiple equipments behind their ISDN interface equipment nonwithstanding that other administrations might implement the ISDN NCTE so as to support only a single terminal.

[68] In a related vein, Tymnet argued in its reply comments that "transparent" flat-rate private lines have been the cornerstone of the telecommunications revolution in the United States, offering service providers the economic incentive and technological ability to develop new and innovative offerings.

[69] ARINC asserted that the possibility of usage-based pricing of permanent virtual circuits was raised in a report on ISDN by the Conference Europeene des Administrations des Postes et des Telecommunications (CEPT). In their reply, the BOCs argued that although tariffing issues should not be resolved in this proceeding, the FCC's cost-based pricing mandate should allay the expressed concern. Over-recovery, even under a usage-sensitive pricing structure could be prevented, for example, by the incorporation of a "cap." Also, in a competitive environment with multiple ISDN providers, any entity that deviates from cost-based pricing is subject to bypass, both from other ISDN providers (presumably using different pricing principles) or service providers using non-ISDN

While API asserted that private line and virtual circuit offerings may appear to the user as identical in some respects, it was concerned that substitution of permanent virtual circuits for dedicated private line offerings could result in the loss of: (a) alternative routing capabilities (presumably, under user control);[70] (b) the ability to monitor critical circuits to detect degradation prior to an actual failure; (c) control of the maintenance of circuits; and (d) the ability to transmit higher speed data through a standard interface if new terminal technology will support such transmission.[71] ADCU made many of the points made by IBM, ARINC and API, and it noted additionally that its members' needs to transmit data to remote locales will not be met by ISDNs, because ISDNs may not be provided in remote locales.[72] The AAR underscored the importance of dedicated private line services to the operations of railroads, noting that these offerings are relied upon: (a) to assure complete control over the availability of high quality (and reliability) communications; and (b) to provide bandwidth and bit transmission rates which may not be available from a public switched network.[73]

56. ADAPSO argued that virtual circuits are an unacceptable alternative to dedicated private lines for economic and technical reasons. Because

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architectures. BOC reply, 6-7. GTE noted in its reply, at 11, that while the pricing of ISDN needs to be addressed, including the possibility of a "bit rate" charging component, it is too early in the CCITT ISDN planning process to have detailed recommendations on this subject. CCITT Study Group III, the group that addresses tariff principles, has established a Special Rapporteur's group to study ISDN tariff principles, which has preliminarily considered the subject and has developed a set of additional questions for further study during the next four-year study period. *See,* Appendix B to GTE's reply, reproduced in Appendix B of this report, for the draft questions which will be considered by Study Group III in May, 1984.

[70] In both circuit-switched implementations of non-permanent private line-like services and packet-switched implementations, the network assigns transmission resources and routing from its common pool, normally not under the control of the user.

[71] API is adverting to the fact that conventional voice-bandwidth analog circuits have, over time, supported increasing baud rates for data transmission as modulator/demodulator (modem or dataset) technology improved, starting initially at 300 baud and reaching current levels of 4800 baud (and higher in some circumstances). A digital interface involves intrinsic level and time quantization, thus the implementation of the digital interface probably will more absolutely limit the speed of information transmission than dedicated analog private lines. Conversely, digital transmission media have better controlled imperfections than analog ones, and lower error rates are possible when they are employed for transmission of data.

[72] Thus, ADCU suggests that any ISDN implementation in the United States will involve a mixture of new technology ISDNs and older technology analog networks. Reason suggests that this result will not be limited to the United States.

[73] Digital ISDNs will have a limited set of transmission rates largely fixed by those who design and implement ISDNs, and may not be under full user control. By contrast, a user of a fully analog private line may use any transmission rate which is supported by the terminal equipment and the bandwidth and noise characteristics of the analog channel.

switching must be performed to establish a virtual circuit, the network protocols, interface requirements and transmission specifications associated with a switched circuit will limit the use to which virtual circuits can be put. In ADAPSO's view, unlike a dedicated private line circuit a virtual circuit on an ISDN is not truly "transparent"; it involves internal network protocols, and requires users to superimpose their protocols on those intrinsic to the network, potentially limiting users' flexibility in configuring their own protocols. According to ADAPSO, this could result in users having to cope with slower access and transmission times if they use virtual circuits as a substitute for dedicated channels.[74] ADAPSO noted that it appears that virtual circuits could not support multidrop arrangements, and that applications presently supported over multidrop private line networks could not be supported over virtual circuits.

57. The National Telecommunications and Information Administration of the United States Department of Commerce (NTIA) confirmed the view of the ICA that the concept of private line-like elements in ISDN had not been made firm. For example, NTIA observed that one possibility for creating virtual circuits in a time-multiplex system might be to assign a permanent time slot in the frame structure to a given user; another might be to create what NTIA terms a "demand" leased circuit (i.e., when the subscriber goes off-hook a circuit is automatically set up by the network); a third might be a permanent virtual circuit approach under which the network would implement a previously-defined routing algorithm each time communications with a "PVC address" are transmitted.[75] While NTIA observed that these alternatives might create some efficiencies through higher occupancy, it concluded that virtual circuits would not be an adequate substitute for dedicated private line service because packet networks will not satisfy all data applications. In NTIA's view, while permanent virtual circuits will undoubtedly be attractive for some applications, they simply cannot provide many of the service needs, including voice, now fulfilled by private leased circuits. Thus, while NTIA

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[74] Similar comments were made by CBEMA which argued that the use of leased channels can eliminate concerns related to connect times, transmission delays, network congestion, protocol restrictions, etc. If ISDN is configured as a purely public network designed to accommodate all services, reasons CBEMA, there will be design and performance compromises which — for specialized requirements — are inadequate or unduly limited.

[75] The second and third of these might or might not involve a statistical priority over conventional public network uses of the common facilities. Alternatively, these might be implemented simply as automatically "dialed" calls on a public switched network, with no preference over any other call on the network, somewhat similarly to the implementation of speed dialing in domestic MTS. NTIA's comments address both circuit-switched and packet-switched alternatives to dedicated private line service.

urged that new alternatives be made available,[76] it advised that the United States should seek continuation of the availability of dedicated private leased service in an ISDN environment.

2. Discussion:

58. Under the Communications Act, common carrier offerings must be generally available upon request (Section 201(a)); these offerings must be reasonable (Section 201(b)); and they must be made without unjust or unreasonable discrimination (Section 202(a)). We have consistently interpreted these statutory mandates as requiring common carrier offerings to be made available in a manner which maximizes consumer flexibility in the use of such offerings. The result has been that the efficiency of the many enterprises which depend, directly or indirectly, upon telecommunications has been promoted because consumers have had the flexibility, through the use of their own terminal equipment, communications facilities and enhancements, to optimize their specific uses of generally-offered common carrier communications.

59. In Computer II, we interpreted these mandates as requiring that basic common carrier offerings, unencumbered by protocol processing which creates an enhanced service, continue to be offered generally, so as to support a wide range of unregulated data and information processing and terminal equipment uses. As noted previously, this policy is reflected in our Computer II requirement governing all carriers (and not just those subject to structural separation) that basic offerings be unbundled from enhancements, and that only basic offerings be made in any tariffs which are required.[77] In our Protocol Decision we considered whether carriers subject to structural separation might be authorized specially to commingle protocol processing functions with the facilities which support basic service, and while we adopted a waiver procedure under which flexibility might be accorded, we stated that such authorization will ordinarily be granted on condition that the underlying basic offerings remain generally available, unencumbered by optional protocol processing, consistent with this overriding Computer II policy.

60. The comments on the lack of comparability of virtual circuits to dedicated private line (or leased channel) services convince us of the wisdom of these United States policies in favor of consumer choice and general offerings of unencumbered basic communications capabilities.

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[76] *E.g.*, leased circuits available on a demand basis (i.e., set up automatically at each call initiation) and on a time periodic basis (i.e., made available for specific time periods as agreed at the subscription time).

[77] A tariff for interstate service is a public offer to provide service, and this offer is subject to the requirements of the statute that service be offered reasonably and without unjust or unreasonable discrimination. Thus, a tariffed offering must be a general one, and it may not unreasonably favor a carrier's own enhanced service operations.

Most of the comments conclude that virtual circuits (i.e., packet-switched services) and other alternatives (i.e., circuit-switched "demand" services) are not comparable to private line service on technical grounds. Several comments note that network operations on protocols are associated with virtual circuits, *i.e.*, processing to set up the virtual circuit as needed,[78] and that this processing denies some flexibility and efficiency in the usage of the virtual circuits. Other comments urge that the technology of a digital ISDN intrinsically denies flexibility now present in the use of analog private line services, *i.e.*, because of the amplitude and time quantization associated with a digital transmission technology.

61. While AT&T, the BOCs and GTE implicitly argue that ISDN implementations of virtual circuits (or other "demand" leased circuit alternatives to dedicated private line service) may adequately serve many subscriber needs which are today satisfied with private line services, it is significant that many of the users themselves, as reflected in the comments of their associations in this proceeding, are unwilling to be made totally dependent upon this value judgment. The users accept the claim that ISDN may satisfy some of their needs, but they strongly urge that dedicated private line services remain available if ISDN implementations of alternatives in fact do not do so for technical or economic reasons. The data processing community (as reflected in comments of ADAPSO, ADCU and IBM) argues strongly that the intrinsic limitations of virtual circuits could unacceptably impede the efficiency of information processing, as compared with private line. Also significant is that AT&T and the BOCs themselves recognize that ISDN may not adequately serve all current private line service needs.

62. We view these arguments as sound. It is clear that while packet-switched services have utility for relatively low-speed "bursty" voice or data communications, they are not as efficient as dedicated private line services for high-speed non-"bursty" communications because of the overheads associated with packet transmission. More broadly, our Computer II unbundling principle would best be served by the continued availability of dedicated private line services notwithstanding the emergence of packet-switched and circuit-switched ISDN alternatives, and we would urge the United States delegations to the CCITT to continue to make this point.[79] In this regard, we commend the efforts of our delegations and the CCITT groups which revised the ISDN working

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[78] Processing involved in call initiation, routing and cessation, is permitted to be associated with basic service under the Computer II decisions. *See*, Protocol Decision, para. 28.

[79] Furthermore, Section 214(a) of the Act might have applicability if there were a broad scale discontinuance or impairment of dedicated private line services, in view of the strenuous arguments of users and others that the public convenience and necessity would not be served by substitution of ISDN alternatives for private line. *See*, ITT World Comm'ns Inc. v. New York Tel. Co., 381 F.Supp. 113 (S.D.N.Y. 1974).

documents more specifically to ensure the concept that dedicated private line services will coexist with and be a component of ISDN offerings.[80]

E. The ISDN Planning Process; Role of the FCC

63. As was outlined in the Notice, the ISDN planning process has been somewhat amorphous. Generally, the CCITT has assumed a major role in coordinating ISDN plans worldwide through the development of ISDN recommendations. While such recommendations are not binding on any administration in a legal sense, they have more than mere advisory status in practice and often are treated as standards to be conformed to. A major role of CCITT recommendations is to establish standards for the effective interworking of national networks at the point(s) of their interconnection. Absent common electrical signals, protocols and operational procedures, effective interworking is not possible. While such matters can be (and often are) worked out bilaterally between the networks to be interconnected, it has long proven desirable to arrive at suitable standards on a multilateral basis in the CCITT. Increasingly in recent years, the CCITT technical and operational standardization process has been extended beyond the point(s) of interconnection, to the services and facilities which ultimately are interconnected for international communications. Thus, in ISDN planning, recommendations have been drafted to govern not only interconnection of national ISDNs, but seemingly to govern the design of the national ISDNs themselves.

64. The FCC's domestic policy on analogous issues of standardization has been generally not to adopt governmentally-mandated technical standards which are relevant to the performance of telecommunications facilities, and to limit such standards to those that directly achieve statutory purposes, in an effort to minimize regulatory impediments to innovation and design flexibility. If a new design approach arises in a manner different than existing standards contained in governmental rules, the rules themselves generally require modification before the design can be deployed, resulting in an impediment to innovation. For example, we have been moving away from standards on radio transmitting equipment which go to the use of such equipment and limiting standards on radio equipment in our rules to those that address interference. And, as noted previously, in the telephone equipment registration program we have established limits on equipment design solely to protect against "harm",[81] without establishing standards ad-

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[80] CCITT Study Group XVIII, Group of Experts on ISDN Matters, Brasilia, Feb. 13-24, 1984, I-Series of Recommendations, I.200, Section 2.1.

[81] Harm is defined as, "Electrical hazards to telephone company personnel, damage to telephone company equipment, malfunction of telephone company billing equipment, and degradation of service to persons other than the user of the subject terminal equipment, his calling or called party." 47 C.F.R. Chapter I §68.3(g). Significantly, while we have

dressing the utility or efficiency of registered terminal equipment. It has been the position of the FCC that performance standards may be desirable, but that they should be non-governmental voluntary ones adopted under the auspices of organizations such as those accredited by the American National Standards Institute (ANSI).

65. ISDN planning, particularly at the international level, is somewhere between these two models. As noted, while the CCITT "recommendations" are just that, they are often treated as binding in many administrations, or by their governmental PTTs. Indeed, some administrations incorporate CCITT recommendations in procurement and manufacturing specifications. Thus, while the United States might not pursue such a standardization model domestically, it must operate in a world community which pursues such a model internationally. Because of this, the private sector and the United States government participates variously in CCITT deliberations in general, and in its ISDN deliberations specifically.

66. A variety of technical and other fora address ISDN planning in the United States in formulating our national inputs to the CCITT, including technical organizations, voluntary standardization organizations and trade associations. However, since actual full membership in the CCITT is limited to governments, the Department of State ultimately represents the United States government in that organization. As was noted in the introduction to this report, the Department of State has established an advisory committee (the U.S. CCITT Organization) to serve as a vehicle for seeking advice from the private sector and from other government agencies in performing its CCITT representational role. This advisory committee has served as the focal point for coordinating United States positions on ISDN to be advocated in the CCITT, through its ISDN Joint Working Party and an ISDN technical subgroup, the Technical Working Group. In the Notice, we tentatively concluded that telecommunications policy issues may be implicated by ISDN plans, a view which has been confirmed in the comments herein. Assuming this, we sought comment on the appropriate role of the FCC in the planning process — a role not of making or influencing decisions on the technical characteristics of facilities and services, which decisions are properly made by the private sector, but of identifying policy issues as they arise to ensure that they are adequately addressed in the technical and other judgments to be

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acknowledged that a proliferation of equipment generating network control signalling improperly could result in "harm" (as defined above), we have consistently declined to adopt rules standardizing most network control signal functions in the belief that any such standards can be arrived at voluntarily, and that any control signalling malfunctions will immediately be detected and corrected by users. Such signals are, in principle, the types of protocols which form the major portion of the CCITT ISDN recommendations.

made. We briefly summarize below the comments on the planning process and the appropriate role of the FCC.

1. Comments:

67. Comments of AT&T in this proceeding urge that the U.S. CCITT Organization (and its ISDN subgroups) is an appropriate forum for ventilating the policy implications of ISDN planning, and that additional proceedings at the FCC (including the instant one) unnecessarily duplicate the efforts of the U.S. CCITT Organization and could unnecessarily impede progress.[82] Its comments acknowledge that important United States telecommunications policies might be implicated in the ISDN planning process, but it is AT&T's position that such issues might best be addressed through effective FCC participation in the efforts of the U.S. CCITT Organization, rather than additional FCC proceedings. In this regard, AT&T encourages the participation of the FCC and its staff in the deliberations of the U.S. CCITT Organization.

68. Notwithstanding this general view, AT&T implicitly acknowledges that such participation may not adequately ensure consistency with United States telecommunications policies of the positions of United States participants in CCITT ISDN planning meetings, saying:

> In addition . . . AT&T would be willing to work with the Commission, Department of State, NTIA or any other interested party to develop appropriate policy review procedures within the [U.S. CCITT Organization ISDN Joint Working Party] to ensure that U.S. policies are thoroughly considered, in a timely fashion, in developing USCCITT proposals, if such an approach would meet Commission objectives.

While AT&T acknowledges that the CCITT could ultimately adopt an ISDN plan which would be incompatible with United States policies, it argues that the U.S. CCITT Organization, with the participation of diverse public and private sector interests, remains an active and influential contributor to ISDN planning and that the prospects remain good that the international ISDN plans will accommodate our policies.

69. In their comments, the BOCs note that the ISDN Joint Working Party subgroup of the U.S. CCITT Organization has served as a "funnel" for coordination of all United States CCITT ISDN contributions, be they contributions of the United States government, or contributions of United States entities with RPOA or SIO status in the CCITT. The BOCs urge that this funnelling procedure continue. They observe that through its participation in the activities of the Joint Working Party, the staff of the FCC has been able to raise the policy implications of technical and other

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[82] Interestingly, many other comments endorse our initiation of this proceeding, *e.g.*, IBM ("strongly endorses"), IDCMA, AAR, Harris, ARINC, Motorola (supports the "general thrust"), API ("applauds" initiation of this proceeding), RCA, CBEMA, and the NTIA (the Notice "has begun a valuable process of education within both government and industry that will help assure that U.S. interests are protected and advanced.")

ISDN recommendations pending before or proposed to be submitted to the CCITT, and the BOCs assert that the FCC should play a key role in this process by continuing to participate in such activities effectively.

70. The remaining comments include a spectrum of views on the effectiveness of the domestic and international ISDN planning processes, and on the appropriate role of the FCC. Virtually all parties endorse the concept that the FCC and its staff should effectively participate in and monitor the ISDN activities of the U.S. CCITT Organization and its ISDN subgroups (and related voluntary standardization organization efforts, see below) to identify policy implications of the ISDN matters they are considering.[83] Some parties claim that the carriers, and largely AT&T, have historically dominated the processes of the U.S. CCITT Organization and the activities of United States delegations at the CCITT, and they variously propose more active roles for the FCC in the overall process as a public interest cross-check to this alleged domination to ensure that important domestic telecommunications policies are not undermined by adoption by the CCITT of inconsistent international recommendations due to a failure of the United States delegations to make known these policies.[84]

71. Other comments urge that FCC proceedings be employed to complement (or even supplant) the activities of the U.S. CCITT Organization and its subgroups domestically, and the CCITT internationally. For example, CBEMA and M/A-Com urge that we institute formal rule-making proceedings to adopt ISDN standards, and Harris argues that the FCC should be the focal point for ISDN deliberations in the United States, presumably through the use of formal regulatory processes. Several comments urge a less formalistic approach, *i.e.* that this inquiry be kept open to serve as a vehicle for the collection and dissemination of information on ISDN planning as the planning process continues (comments of ARINC and SBS). The ICA urges that this inquiry be kept open to serve as a focal point for collection of the views of the public, views that, in its view, may not otherwise be weighed in the deliberations of the groups which address ISDN domestically and internationally.

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[83] *E.g.*, IBM, Northern Telecom, Comsat, RCA, MCI, CBEMA, SBS, Harris (advocating participation in a "major way"), API (advocating that the FCC should take an "active role"), and M/A-Com (advocating participation with no more dominance or control than any other participant). Continental urges that we confine our role to one as a monitor, apparently agreeing with the comments that we should participate in such activities. The sole party arguing to the contrary is ADCU (arguing that the FCC should limit its role to giving input to another "appropriate federal entity responsible for international ISDN telecommunications coordination", exemplified as the Departments of Commerce and State).

[84] *See*, comments of IDCMA and SBS. RCA seeks a similar result by urging that the FCC should take a more active role in the CCITT.

72. Still other comments note that significant issues relating to the pricing of ISDN services will ultimately require resolution by the FCC, and that future ISDN proceedings will be needed. For example, while Continental argues against FCC proceedings on ISDN planning, it adverts to the importance of access issues in an ISDN environment; if access issues in current telephony are a prologue, such issues will prove contentious and will be placed before the FCC for resolution. NTIA more specifically argues that further effort is required with respect to ISDN tariffs, as does the ICA.

73. Finally, the Exchange Carriers Standards Association (ECSA), formed recently in response to the proposals in the FCC's Notice of Proposed Rulemaking in CC Docket No. 78-72, Phase III,[85] observes that much of the ISDN planning relates to exchange facilities. A major focus of the activities of the ECSA is to serve as an open forum for the development of voluntary technical standards and recommendations governing exchange facilities on an industrywide basis. To this end, the ECSA has sought accreditation by the American National Standards Institute (ANSI) as the sponsoring organization for a new technical standardization body, the T-1 Committee, and is using the openness and fairness requirements established by ANSI as a condition for such accreditation. The ECSA has filed comments in this proceeding identifying the relationship of ISDN planning to the exchange facilities which are the primary focus of this organization, and indicating its intention to play a role in the future development of ISDN plans. United has strongly endorsed such a role for the ECSA.

74. As noted previously, all United States ISDN contributions to the CCITT have been coordinated through the ISDN Joint Working Party (JWP) subgroup of the U.S. CCITT Organization Department of State advisory committee. The JWP established a Technical Working Group (TWG) subgroup to arrive at recommendations and consensus positions on the many difficult and complex technical matters being addressed in ISDN planning at the CCITT. It was recently announced that the ECSA/T-1 committee has established an ISDN subcommittee to assume the functions of the TWG, and the agenda for the next meeting of the TWG on April 2-6, 1984 in Boulder, Colorado includes a proposed reconstitution of the ISDN TWG as the ECSA/T-1 ISDN subcommittee.

2. *Discussion:*

75. Based on the comments received in this proceeding, we have a number of observations to make on the ISDN planning process and on the appropriate role of the FCC in this process.

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[85] N. 21 *supra.*

76. *First* (and foremost), it is not the function of this Commission to plan or to design carriers' and others' ISDNs. The bulk of the ISDN planning effort nationally and internationally has been directed toward detailed technical planning, overall system design, and system and subsystem specification. To the extent that entities other than carriers (such as users, manufacturers, the data processing community and government agencies) wish to participate in the detailed ISDN planning and design process, we believe there are adequate vehicles for such participation established. The Department of State's U.S. CCITT Organization, the JWP forum for coordination of all United States ISDN contributions to the CCITT and its TWG subgroup, have all been open to the public, and those entities which have sought to participate in their deliberations have been free to do so.

77. As M/A-Com properly notes in its comments herein, the cost of such participation may not be cheap, yet in the United States this cost is borne by those companies which believe that their participation will lead to more meaningful standards. The choice of whether to participate or not is made by each company, which must determine how standards could affect its current or future products. Based on the broad range of interests represented in the comments in this proceeding — many of which apparently have not participated in the ISDN planning process in the past — we believe that our issuance of the Notice and the act of preparing comments may well have sensitized a broader range of entities to the implications of the ISDN planning efforts, to the end that they may in the future seek to participate more actively.

78. Furthermore, the expected assumption by the ECSA/T-1 ISDN subcommittee of functions previously performed by the ISDN TWG may itself stimulate broader participation in ISDN technical planning in the future. The ECSA has a broad base of membership, including comprehensive membership by exchange carriers, and membership by representatives of the very interests which may not have participated effectively in ISDN planning to a significant extent in the past, *i.e.*, interexchange carriers other than AT&T, enhanced service providers, equipment manufacturers and user groups. Thus, in view of the openness and procedural fairness procedures which govern the activities of the ECSA/T-1 Committee, we conclude that the fears of certain commentors that ISDN planning may have been dominated by single interests will be allayed in the future.

79. *Second*, it is clear that the technical and other judgments involved in ISDN planning can and do raise policy issues, often issues relating to decisions previously reached by the FCC. As many comments argue, just as the United States cannot unilaterally impose its policies on other administrations, it similarly would be inappropriate for them to impose their policies on the United States. To the extent that CCITT recommenda-

tions might implicitly incorporate or be predicated upon a non-competitive market structure, such recommendations could not be implemented in this country consistently with domestic law. However, the nature of CCITT proceedings (resolution by consensus) has historically led to accommodation by the CCITT of the special requirements of the United States and other administrations when preparing its recommendations, provided that these requirements are made known during the deliberations of the various CCITT bodies.

80. A number of comments herein argued that these requirements were not being made known, and that the FCC as the steward of our domestic pro-competitive telecommunications policies and requirements should take a more active role in the preparation of United States contributions to the CCITT. We reach no judgment on the merits of the fears which underlie these comments. We simply note that the Commission through its staff has been participating more effectively in the ISDN planning process, and that as noted in this report flexibility has been built into some of the international ISDN planning documents to satisfy important United States concerns.

81. *Third*, given that ISDN planning may raise policy issues, we must consider how best to address such policy issues. Since the results of the ISDN planning process may well invoke the United States regulatory process at some point, through Section 214 and radio applications governing the facilities and rulemaking (if necessary) to establish "harm"-directed interconnection constraints, one model for doing so which is suggested in the comments is to institute rulemaking proceedings early in the planning process.[86] We find this view untenable as a practical matter. Subjecting the design process to an often adversarial formal rulemaking procedure would paralyze the design process. Design judgments cannot be made on the basis of legalistic pleadings because complex tradeoffs among the elements of an overall design often are required. If a party suggested a change in one element in a formal pleading, and the appropriate effect might be a corresponding change in another element, the delays inherent in preparation of comments, replies and responses could result in an overall design process measured in years (if not decades). The rest of the world is moving towards implementation in the

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[86] Implicitly, these comments reject the desirability of denying facilities applications at a late stage in the planning process, if these applications conflict with domestic telecommunications policy. While such a result might be undesirable, and can be avoided through ISDN planning which includes sufficient flexibility to accommodate important United States policies, it is not unprecedented. *See, e.g.*, Overseas Communications, 67 FCC2d 358 (1977), *reversed*, 71 FCC2d 71 (1979). It is precisely to avoid any such result that it is important that other administrations be adequately sensitized to our policies during the course of ISDN planning.

near future; the United States, and the industries which depend upon the efficiency of its telecommunications, cannot afford to fall behind.

82. But, short of this, it still remains to be determined how the FCC might best participate in the overall process. We believe that informal or advisory participation by the FCC and its staff in the activities of groups such as the U.S. CCITT Organization, its ISDN Joint Working Party, voluntary standardization groups such as the ECSA/T-1 ISDN subcommittee and others, and participation in CCITT delegations, will provide an adequate opportunity for those in the private sector and their foreign counterparts who are actively performing ISDN planning to be sensitized to our policy concerns. In theory, identification by the FCC and its staff in these fora of policy concerns can be ignored by the participants. In practice, given the broad base of participation in these groups by a diversity of parties, inevitably including those with a vested interest in any such policies, any such concern which might be raised will be discussed and addressed in the consensus processes normally employed by these groups, regardless of the formal status (or lack thereof) of our staff.[87]

83. *Fourth*, our conclusion that formal FCC proceedings should not be instituted to address ISDN issues is predicated on the view that the various domestic groups involved in informal ISDN planning should employ open procedures which ensure that those with an interest in their activities have an opportunity to participate in their deliberations effectively, what might be characterized as fundamental fairness.[88] We believe that the procedures governing these groups appear to ensure that such fairness will be present. For example, the Department of State's U.S. CCITT Organization is governed by the Federal Advisory Committee

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[87] Although considerable deference may be given by the Department of State to the recommendations of the U.S. CCITT Organization advisory committee, presidential orders bear on the FCC's role in this process. Under these orders, "the Secretary of State shall coordinate with other agencies as appropriate, and in particular, shall give full consideration to the Federal Communications Commission's regulatory and policy responsibility in this area." Exec. Order No. 12046, 43 Fed.Reg. 13349, para 5-201 (Mar. 29, 1978), *as amended* by Exec. Order No. 12148, 44 Fed.Reg. 43239 (July 24, 1979). Thus, this responsibility of the Department of State, and the possibility that the FCC may advise the Department directly, which is always present, ensures that policy concerns of the FCC will be weighed in the deliberations of the various domestic ISDN planning bodies.

[88] For example, a procedure under which participants may bring to a meeting for discussion and approval massive and complex technical documents not previously seen by the participants might not accord with this concept. While flexibility should be retained to address the exigencies of extraordinary circumstances, we would suggest that these groups establish as the procedural norm that submissions of this nature will ordinarily not be considered unless previously distributed to the participants so they may participate effectively in the discussions.

Act,[89] and a publicly available charter. The ISDN Joint Working Party appears to have conducted its activities consistently with that Act, as has the ISDN Technical Working Group. The ECSA/T-1 Committee overall and its ISDN subcommittee are to be governed by ANSI procedural requirements which similarly ensure fairness and openness.[90]

84. And *fifth,* we believe that continuation of this informal inquiry proceeding as a vehicle for solicitation of public comment on the ISDN policy issues which likely will not be resolved in the current CCITT plenary cycle would be desirable. It is clear from the comments that there is significant uncertainty about the ultimate pricing and tariff principles to be employed for ISDN-based services. Pricing and tariff issues will likely be addressed in the next four-year plenary cycle commencing in November, 1984. Significant questions of domestic policy will arise concerning the relationship of ISDN to our exchange access policies and requirements, to the MFJ governing the BOCs, to the pending proposed GTE consent decree (if it is entered) and to any corresponding requirements we might adopt governing those carriers not subject to antitrust consent decrees. Issues relating to routing and addressing/numbering may require some Commission action. Other issues may arise in the future as well.

85. Our institution of this proceeding has clearly not impeded the continuing domestic and international ISDN planning efforts, and we would expect that a continuation of this inquiry would similarly not do so in the future. Rather, through the posing of specific questions to elicit policy-focused comment, the Notice served as a vehicle for the crystallization of United States policy views on ISDN which were then presented to, and to some extent accommodated by, the CCITT ISDN planning groups.

86. Therefore, we will not terminate this inquiry, and we will accept the filing of recommendations on additional questions upon which public comment might be sought in the future. In this regard, however, we emphasize two points. First, we will not permit this to become a vehicle for debate before the FCC on the merits of non-policy or design issues better resolved in the other groups which will continue to address ISDN planning. Technical issues undoubtedly will arise where there will be differences of opinion on the appropriate approach. The U.S. CCITT Organization and its subgroups make recommendations to the Department of State[91] using consensus procedures, not unanimity, and the

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[89] 86 Stat. 770 (1972), *amended*, 90 Stat.1247 (1976), 94 Stat. 3040 (1980).

[90] Indeed, given the potential antitrust implications of voluntary standardization activities of groups such as the ECSA, *see* our analysis of this issue in the CC Docket No. 78-72, Phase III Notice of Proposed Rulemaking, 94 FCC2d 292, 48 Fed.Reg. 26632 (June 9, 1983), it is likely that the procedures employed by these groups to ensure fairness will go beyond those inherent in the Advisory Committee Act.

[91] Federal Advisory Committee Act, n. 89 *supra.*, Section 9(b).

various voluntary standards and technical organizations similarly use consensus procedures, thus there will be participants whose views are not accepted. The FCC will not assume the role of an appellate body to which such differences may be appealed. Adequate review mechanisms are in place to which such differences, if they arise, may be brought, including the ANSI review procedures which will presumably govern the activities of the ECSA/T-1 Committee (and other ANSI-accredited groups), and the U.S. CCITT Organization (when it considers the recommendations of its subgroups and of other groups which are submitted to it). And second, those who might submit such recommendations are cautioned that while we are not specifying how and when recommendations for further inquiry may be filed, it is our intention through this process only to address those matters that are material to our policy concerns and are significant.

III Conclusion

87. In summary, we view this proceeding as having served the valuable purpose of focusing the attention of the industry and of government on the policy implications of ISDN planning. Many issues raised in our Notice and in the comments have been resolved successfully in the ISDN planning which continued during the pendency of this inquiry. Other issues have been raised which will require resolution in ISDN planning and possibly in the United States regulatory process in the future. This inquiry has served to place the affected public on notice of these, and has started the process under which these issues too may be resolved.

88. It is clear from the comments and our analysis that the FCC has an institutional interest in the ISDN planning process, because the results may be subject to the regulatory process in the future, and because it is possible at an early stage to seek to ensure that the planning incorporates sufficient flexibility to accommodate important United States telecommunications policies. In this report, we have emphasized the strong domestic bias in favor of voluntary standardization by the private sector, not government. However, we have acknowledged that internationally a somewhat different model is pursued. Thus, while the United States probably would not impose standards on the many technical matters now being addressed in CCITT ISDN planning, a process which by virtue of the governmental provision of telecommunications in many countries is largely a governmental one, it is important that CCITT recommendations which are treated as binding by other administrations be consistent with important interests of the United States public in commerce, defense and foreign policy. For this reason, we conclude that the United States should participate effectively in the ISDN deliberations of the CCITT.

89. At the same time, we have sought to arrive at a role for the FCC in this process which promotes the statutory objectives of the Communica-

tions Act and the public interest generally, but without impeding the evolution of ISDN. We have concluded that the advisory committee processes of the Department of State and the processes of voluntary standardization organizations such as the ECSA/T-1 Committee provide an opportunity for the policy implications of largely technical ISDN planning judgments to be addressed. Through informal participation in these processes by the FCC and its staff, we believe that these policy issues can appropriately be resolved. And finally, while we have rejected the option of subjecting ISDN planning to the rigidities of the formal rulemaking process, we have concluded that the informal inquiry procedure used in this proceeding can be valuable as an additional forum for addressing policy issues in the future — as circumscribed above — and for that reason we are not terminating this inquiry.

90. Accordingly, pursuant to Sections 4(1)-(j), 218, 303(g), 403 and 404 of the Communications Act of 1934 as amended, THIS REPORT IS HEREBY ADOPTED, and the Secretary is directed to cause of copy thereof to be published in the Federal Register.

FEDERAL COMMUNICATIONS COMMISSION
WILLIAM J. TRICARICO, *Secretary*

* Appendix A-may be seen in FCC Dockets Branch, 1919 M Street, N.W., Washington, D.C. 20554.

APPENDIX B

AD HOC GROUP FOR QUESTION 21/III Temporary Document No. 606-E

Geneva, September 21, 1983 *Original*: English

SOURCE: SPECIAL RAPPORTEUR FOR QUESTION 21/III

TITLE: DRAFT QUESTIONS TO BE STUDIED DURING THE NEXT STUDY PERIOD (1985-1988)

* * * * *

Taking into account the study results which have been made for the Ad Hoc Study Group for Question 21/III as well as the proposals made in documents D.70 and Com. III- No. 106, draft questions concerning ISDN tariff guidelines are proposed for the forthcoming study period (1985 - 1988).

1. Draft Question X/III - ISDN Tariff Guidelines (Continuation of Question 21/III)

Since the implementation of the ISDN would require a long time span, it was expected at the time of adopting this Question that it would require more than one study period. With progress made so far, the following items should continue to be especially studied:

1) Service definition criteria
2) Charging parameters
3) Two-tier tariff and other possible tariff principles
4) Accounting and charging

2. Draft Question Y/III - Accounting and Charging Principles for the ISDN and the Supporting Common Channel Signalling System

As work in Study Groups VII, XI and XVIII is progressing rapidly towards finalization of Recommendations for ISDN upon which equipment manufacture will be based, it is suggested that Study Group III should give urgent consideration to the need for measuring the volume of data transmitted over the signalling channel which may be required for international accounting and/or for charging customers for such data.

Considering that, in an ISDN environment, the signalling channel may be used for the transmission of both Administration/RPOA and customer-originated data, what principles should be followed for:

1) Accounting between Administrations/RPOAs for terminal and transit traffic
2) Charging customers for the transmission of such data

3. Draft Question Z/III - Tariff Principles for Value Added Services

The value added family of services have some unique problems of their own and it is proposed that a study, separate from ISDN, be undertaken to establish:

1) Service definition criteria
2) Charging parameters
3) Tariff principles

* * * * *

Reciprocal Service
Suburban Community 307(b) Issue
Transmission First Local

In hearing matter of mutually exclusive applications for FM station in Manhattan or Ogden, Kansas, respectively, Review Board affirmed ALJ's grant based on Section 307(b). Winning applicant would provide first local transmission service to Ogden whereas Manhattan already has four radio stations and three newspapers.
—*Kaldor Communications, Inc.*
BC Docket No. 82-118

FCC 84R-26

BEFORE THE
FEDERAL COMMUNICATIONS COMMISSION
WASHINGTON, D.C. 20554

In re Applications of	
Kaldor Communications, Inc. Manhattan, Kansas	BC Docket No. 82-118 File No. BPH-810420AC
Ogden Broadcasting Service, Inc. Ogden, Kansas	BC Docket No. 82-120 File No. BPH-810427AK
For Construction Permit for a New FM Station	

APPEARANCES

Herbert D. Miller, Jr., on behalf of Kaldor Communications, Inc.; and *Nathaniel F. Emmons*, on behalf of Ogden Broadcasting Service, Inc.

DECISION

Adopted: April 13, 1984; Released: April 24, 1984.

BY THE REVIEW BOARD: MARINO (CHAIRMAN) AND JACOBS. BOARD MEMBER BLUMENTHAL NOT PARTICIPATING.

BOARD MEMBER JACOBS:

1. This proceeding involves the mutually exclusive applications of Kaldor Communications, Inc. (Kaldor) and Ogden Broadcasting Service, Inc. (Ogden) for authority to construct a new FM broadcast station (Channel 280A) at Manhattan or Ogden, Kansas, respectively. By Hearing Designation Order, 47 Fed. Reg. 9278, published March 4, 1982, these applications (and two others that were subsequently dismissed pursuant to a settlement agreement) were designated for hearing to determine in accordance with Section 307(b) of the Communications Act of 1934, as amended, 47 U.S.C. § 307(b), which of the proposals would best provide a fair, efficient, and equitable distribution of radio service, and, in the event that a choice among the applicants should not be based solely upon considerations relating to Section 307(b), to determine on a comparative basis which proposal would best serve the public interest.[1] In an Initial Decision (I.D.), FCC 83D-36, 96 FCC 2d 998, presiding Administrative Law Judge Byron E. Harrison (ALJ) resolved the Section 307(b) issue in Ogden's favor and granted Ogden's application.[2] We have reviewed the I.D. in light of Kaldor's exceptions, Ogden's reply, the oral argument held December 9, 1983, and our examination of the record. The Board adopts the findings of fact and conclusions of law in the I.D., except as modified herein, and affirms the ALJ's grant to Ogden.[3]

2. The only exceptions of Kaldor that warrant detailed analysis (see notes 1 and 2, *supra*, concerning the residual) argue, in the alternative, that the city of Ogden does not deserve a Section 307(b) preference over Manhattan, Kansas, or that if it does, the preference is not a dispositive one and necessitates a comparative choice between the applicants. Kaldor

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[1] A limited financial qualifications issue was also specified against Ogden. The issue was resolved in Ogden's favor by summary decision prior to the hearing. Order, FCC 82M-1950, released June 21, 1982. Kaldor has excepted to the summary decision, arguing that material questions of fact still existed which should have been explored at hearing. This exception is denied because the alleged unresolved material questions concerning Ogden's financial plan are purely speculative, hypothetical, and without concrete support; hence, summary decision was appropriate. *See* Section 1.251 of the Commission's Rules, 47 CFR 1.251.

[2] While the ALJ concluded that Ogden was entitled to a dispositive Section 307(b) preference, I.D., Conclusions, paras. 13, 20, he also made findings under the contingent comparative issue, to which Kaldor excepts. Since we affirm Ogden's dispositive preference *infra*, we need not reach the standard comparative issue or the exceptions related thereto. *See Beaufort County Broadcasting Co.*, 94 FCC 2d 572, 54 RR 2d 923, *recon. denied*, FCC 83R-73 (Rev. Bd. 1983).

[3] In Memorandum Opinion and Order, ______ FCC 2d______, 55 RR 2d 567 (Rev. Bd. 1984), the Board considered certain post-I.D. pleadings concerning whether Ogden currently has reasonable assurance of the availability of its proposed transmitter site. Such assurance was demonstrated in Ogden's petition for leave to amend and accompanying amendment, filed February 24, 1984, to which Kaldor does not object. Ogden's Amendment will be accepted, and Kaldor's August 29, 1983 motion to enlarge issues will be dismissed as moot.

also maintains that the ALJ should have added a "reciprocal service doctrine" issue to the proceeding, which, if resolved favorably to Kaldor, would also have entitled Kaldor to comparative consideration with Ogden.

3. There is no dispute about the basic decisional facts in this case. The cities of Ogden and Manhattan are separate communities, located about seven miles apart. Ogden's 1980 Census population was 1,804, and Manhattan's was 32,644. Ogden has no radio or television stations licensed to it and no local daily or weekly newspaper, while Manhattan has four radio stations licensed to it (two of which operate commercially—KMAN and KMKF(FM)— and two of which operate noncommercially— KSAC and KSDB-FM), three newspapers, and a variety of other periodicals. Ogden's engineering proposal will serve 7,984 more people (10.4%) than Kaldor's. As to non-common service areas, all areas presently receive at least five daytime primary commercial aural services, but Ogden will provide a fourth commercial nighttime aural service to 6,644 people and a fifth commercial nighttime service to 10,971, while Kaldor will provide no new fourth service and a fifth service to only 9,014 people.[4] I.D., Findings, paras. 9, 17, 19, 20, 26, 28, 30.

4. In *Kent-Ravenna Broadcasting Co.*, 44 FCC 2603, 22 RR 605 (1961), the Commission held that the "fair, efficient, and equitable" standard of Section 307(b) for radio license distribution looks to the relative needs of the respective proposed service areas for a "reception service" (no concern for specific point of origin) and to the relative needs of the proposed communities of license for a new "transmission service" (community of license is point of origin). Both concerns are relevant in the instant case because the proposed service areas, having fewer than five nighttime reception services, qualify as underserved, *see Meredith Colon Johnston*, 33 FCC 2d 324, 23 RR 2d 671 (Rev. Bd. 1972), *aff'd*, 39 FCC 2d 782 (1973), and the city of Ogden currently has no local transmission service. The ALJ concluded that Ogden merited a moderate preference for its reception service advantage, citing *Meredith Colon Johnson, supra* (where a *substantial* preference was awarded for a fourth service to 296

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[4] Although the ALJ also made findings taking noncommercial service into account and the parties have presented arguments concerning the probity of such evidence, we adhere to our recent holding in *FBC, Inc.*, FCC 83R-75, released October 6, 1983 (Rev. Bd.), *recon. denied*, FCC 83R-104, released January 9, 1984, that noncommercial service is not relevant to comparative coverage matters. While *FBC, Inc.* involved noncommercial television service and a stand-alone comparative coverage issue, its analysis of the current status of Commission policy applies equally to noncommercial aural services and to the reception service or comparative coverage aspects of a classic Section 307(b) issue. We therefore expressly overrule our contrary ruling in *Emerald Broadcasting Corp.*, 8 FCC 2d 80, 9 RR 2d 1231 (Rev. Bd. 1967), in which we considered as relevant for Section 307(b) purposes the noncommercial service of an AM station without discussing the policy basis for that action.

people and a fifth service to 499), I. D., Conclusions, para. 11, and an overall "decisional" preference for first local transmission service, service to more people overall, and the previously mentioned reception service advantage, *Id.*, para. 13.

5. Every community of "appreciable size," *Plainview Radio*, 24 FCC 405, 421, 15 RR 363, 381 (1958), is presumed by the Commission to need at least one radio station for local self-expression. *Bie Broadcasting Co.*, 81 FCC 2d 1, 26, 48 RR 2d 471, 491 (Rev. Bd. 1980), *rev. denied*, FCC 81-376, released July 31, 1981; *Beaufort County Broadcasting Co.*, *supra* note 2. Indeed, the United States Court of Appeals for the District of Columbia Circuit has held that "[l]ocal transmission service bestows such important benefits that we have consistently interpreted Section 307(b) virtually to ensure an applicant for first local service preference over one who proposes merely to complement preexisting local operations." *Pasadena Broadcasting Co.* v *FCC*, 555 F.2d 1046, 1050-51 (D. C. Cir. 1977). However, this presumption does not result in an automatic preference and must be weighed against any countervailing factors. *Bie Broadcasting Co.*, *supra*. In other words, the presumption is rebuttable,[5] or, as the court put it in *Harrell* v. *FCC*, 267 F.2d 629 (D. C. Cir. 1959), the Commission must still make a determination of the relative needs of the communities and the relative abilities of the applicants to meet those needs.

6. Kaldor attempts to rebut Ogden's presumptive need for a first local service with a series of shotgun arguments, about which very little need be said. First, it asserts that Ogden has only 300 permanent residents, the remainder of the population being transient-military and, according to Kaldor, uninterested in local matters. While it does not challenge the status of Ogden as a separate community, it implies that it is too small to warrant its own station and has no local news and public affairs needs. These contentions lack adequate evidentiary or case law support. In determining whether a community is of "appreciable" size, the Commission does not distinguish between permanent and non-permanent inhabitants, and we note that in 1979 the Commission granted authorization for an FM station at Mountain Pass, California — population 250. Public Notice, Mimeo No. 21715, September 26, 1979, Furthermore, while Ogden conducted a creditable ascertainment survey to determine the needs and interests of the city's inhabitants — Ogden application, Exhs. 5 and 6 — and the hearing record contains the written testimony of the mayor of Ogden (Ogden Exh. 6) to the effect that there is presently no regular radio or television coverage of city council meetings or community events by

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[5] *E.g.*, *Wilmer E. Huffman*, 32 FCC 1, 22 RR 820 (1962) (second daytime service, which was also first nighttime service and eliminated unserved ("white") area of more than 9000 people, outweighed other community's need for first local service).

any station and that the city would benefit from such local coverage by an Ogden station,[6] Kaldor has not rebutted these expressions of local need. Second, Kaldor contends that because Manhattan's commercial radio stations and only commercial daily newspaper are commonly owned, Manhattan has a need for a competitive broadcast service and diminished weight should be given to the present existence of two commercial radio outlets at Manhattan. This concentration of control argument is not relevant to Section 307(b) determinations. *Kittyhawk Broadcasting Corp.*, 20 FCC 2d 1011, 1024 n. 17, 18 RR 2d 125, 141 n. 17 (Rev. Bd. 1970). Finally, Kaldor seeks special Section 307(b) consideration because its 60% stockholder and proposed general manager is a Native American. In *WHW Enterprises, Inc.*, 89 FCC 2d 799, 809-10, 51 RR 2d 409, 416-17 (Rev. Bd. 1982), *rev. denied*, FCC 83-368, released September 15, 1983, we rejected this line of argument, and, contrary to Kaldor, its position finds no support in the Commission's more recent decision in *Waters Broadcasting Corporation*, 91 FCC 2d 1260, 52 RR 2d 1063 (1982).

7. We now turn to Kaldor's exception that the ALJ erred in refusing to consider its application under the reciprocal service doctrine. Memorandum Opinion and Order, FCC 82M-2147, released July 13, 1982. That "doctrine," first announced in *Kent-Ravenna Broadcasting Co., supra),* would permit an applicant for another community that proposes primary service to the favored community under Section 307(b) (in this case, Ogden) to have full comparative consideration with applicants for the favored community if such applicant meets the requirements of the rules for main studio location and program origination with respect to the favored community or seeks a waiver of these requirements. 44 FCC at 2607-08, 22 RR at 612. In the instant case, the ALJ denied Kaldor's requested issue on procedural and substantive grounds — procedurally, because Kaldor filed its issue enlargement request two and one-half months late and approximately one month before hearing without a persuasive showing of why it was not possible to seek the issue in a timely fashion, and substantively, because Kaldor failed to request a necessary waiver of the main studio location rule. We affirm the ALJ's action and take the occasion to declare that 23 years of precedent demonstrate that the reciprocal service "doctrine," as a vestigial organ of the Commission's Section 307(b) policies, has atrophied from non-use, attempted misuse, and internal inconsistency into extinction (subject, of course, to revivification and rehabilitation by the Commission *en banc*).

8. A thorough survey of Commission case law reveals that since the reciprocal service doctrine was enunciated by *Kent-Ravenna* in 1961, the doctrine has only been discussed in six cases that have reached the Initial

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[6] We note in this connection that Ogden has no local daily or weekly newspaper, either. See paragraph 3, *supra.*

Decision stage (or beyond), and in *none* of those cases has the requested relief been granted. *Kent-Ravenna* was quickly followed by two cases in which reciprocal service issues were added — *Rockland Broadcasting Co.*, 45 FCC 1, 23 RR 789 (1962) (Comm'r Ford dissenting), and *Edina Corp.*, 45 FCC 303 (Rev. Bd. 1962) — but the reported decisions do not appear to even mention the doctrine again until 1980, when what was undoubtedly regarded as an esoteric legal curiosity was raised in proceedings before the Review Board in *Radio Greenbrier, Inc.*, 80 FCC 2d 107, 46 RR 2d 1467 (Rev. Bd. 1980). There the Board rejected Radio Greenbrier's reciprocal service argument on the merits (an argument made in the absence of a designated issue) and briefly considered whether the Commission's decision in *V. W. B., Inc.*, 13 FCC 2d 400, 13 RR 2d 487 (1968), vitiated the doctrine but declined to so hold "in the absence of further Commission guidance." 80 FCC 2d at 116 n. 21, 46 RR 2d at 1476 n. 21. In 1982, it was argued in *WHW Enterprises, Inc., supra,* that our (Radio Greenbrier decision had significantly diminished, if not, extinguished, the importance of the reciprocal service doctrine in Section 307(b) cases, but the Board demurred, considered the reciprocal service showing on the merits, and held that WHW did not meet the doctrine's studio and program origination requirements and had not sought a waiver (again there was no designated reciprocal service issue). Shortly thereafter, in *Cornwall Broadcasting Corp.*, 89 FCC 2d 704, 51 RR 2d 389 (Rev. Bd. 1982), the Board noted (*sua sponte* that the losing Section 307(b) applicant could expect no relief under the reciprocal service doctrine because it did not even propose to provide primary service to the entire favored community, let alone meet the studio and origination waiver criteria. Finally, apart from the instant case, we note the very recent Initial Decision, FCC 83D-66, released November 25, 1983, in *Public Service Broadcasting of West Jordan, Inc.*, now pending before the Review Board on exceptions, in which the ALJ added a reciprocal service issue but concluded that the petitioning applicant was not entitled to the requested studio and origination waivers and granted a decisive Section 307(b) preference to its opponent.

9. The preceding review is instructive because it shows that even when a reciprocal service issue has been tried at hearing — the *Rockland, Edina,* and *Public Service* cases — the petitioning parties have been uniformly unable to convince the Commission that there was any public interest justification for granting the requested waivers and circumventing an otherwise-dispositive Section 307(b) preference. This result is not surprising because it reveals that the reciprocal service "doctrine" is only an artificial procedural gimmick lacking true public interest substance. The artificiality is well-illustrated by the instant case, in which Kaldor's application for Manhattan, Kansas was filed on April 20, 1981 and it is

impossible to discern from it or subsequent related pleadings any significant concern for service to the city of Ogden until Kaldor filed its abortive motion to add a reciprocal service issue on June 17, 1982, fourteen months later. Indeed, Kaldor's motion did not even include the requisite studio waiver request. The essence of the substantive problem is that while Kaldor and other reciprocal service petitioners fumble with the *technical* minutiae of the *Kent-Ravenna* test — primary service and studio and origination waiver requests, what should properly be emphasized is service *to the community,* not mere *engineering* service. *See Harrell* v. *FCC, supra,* which stresses that Section 307(b) determinations must focus on the relative needs of the proposed communities and the relative abilities of the applicants to meet those needs. Hence, a reciprocal service petitioner, such as Kaldor, is put in the paradoxical position of trying to demonstrate that Manhattan, Kansas has a greater need than Ogden for a new radio station and that Kaldor will adequately meet those needs while at the same time maintaining that it will provide adequate reciprocal service to the city of Ogden. What invariably results is the kind of litigation strategy gimmick which the Board recently rejected in *Casey Broadcasting Company, Inc.,* 89 FCC 2d 618, 51 RR 2d 247 (Rev. Bd. 1982), *rev. denied,* FCC 83-61, released February 24, 1983 (attempt to gain Section 307(b) preference through dual city licensing proposal fails).

10. In the instant case, not only has Kaldor failed to show that Manhattan, Kansas has a greater need than Ogden for an additional radio outlet, but it has also devoted much paradoxical effort to denigrating Ogden's need for its first radio station at the same time that it feebly maintains as a would-be reciprocal service licensee that it will adequately meet Ogden's (non-existent?) needs. Certainly the Commission did not intend its high-minded *Kent-Ravenna* reciprocal service discussion to lead to such low comedy. Yet, the history of the reciprocal service "doctrine" (paragraph 8, *supra*) does not reveal anything else. We conclude, again subject to further Commission guidance, that the "doctrine" was a noble experiment in Section 307(b) jurisprudence which self-destructed and that the public interest is not well-served by continuing to invoke its quixotic name. In a very complex area of communications law it provides only the illusion of a proper basis for declining to recognize a decisive Section 307(b) preference. We shall henceforth decline to give any serious consideration to the "doctrine" in Section 307(b) determinations.

11. In sum, we fully endorse the ALJ's conclusion that Ogden is the clear winner over Kaldor on each of the three aspects of Section 307(b) analysis relevant to this case — first local transmission service; service to more people overall (technological efficiency); and reception service advantage. See paragraphs 3-4, *supra.* These are more than "sufficient" differences between the proposals to permit a "meaningful 307(b) choice."

Cosmopolitan Enterprises, Inc., 15 FCC 2d 650, 655, 14 RR 2d 1029, 1034 (Rev. Bd. 1968). Hence, we affirm the ALJ's grant of Ogden's application.

12. ACCORDINGLY, IT IS ORDERED, That the petition for leave to amend failed on February 24, 1984 by Ogden Broadcasting Service, Inc. IS GRANTED, and the amendment IS ACCEPTED; and

13. IT IS FURTHER ORDERED, That the motion to enlarge issues filed on August 29, 1983 by Kaldor Communications, Inc. IS DISMISSED, as moot; and

14. IT IS FURTHER ORDERED, That the application of Ogden Broadcasting Service, Inc. (File No. BPH-810427AK) for authority to construct a new FM broadcast station at Ogden, Kansas IS GRANTED, and the application of Kaldor Communications, Inc. (File No. BPH-810420AC) IS DENIED.

FEDERAL COMMUNICATIONS COMMISSION
JEROLD L. JACOBS, *Member, Review Board*

Control, Transfer of, De Factor Transfer

Applications for consent to transfer of corporate control granted. A qualified individual demonstrating that he has exercised *de facto* control of a licensee corporation may seek Commission consent to his acquisition of *de jure* control of the corporation, notwithstanding that more than 50 percent of the corporation's stock is being transferred. —*Metromedia, Inc.*

FCC 84-138

BEFORE THE

FEDERAL COMMUNICATIONS COMMISSION

WASHINGTON, D.C. 20554

In re Applications of

Metromedia, Inc.

For Consent to the Transfer of Corporate Control from John W. Kluge (*De Facto* Control) to John W. Kluge (*De Jure* Control)

File Nos.
BTCCT-840215KE
BTCCT-840215KF
BTCCT-840215KG
BTCCT-840215KH
BTCCT-840215KI
BTCCT-840215KJ
BTCCT-840215KK
BTC-840215KL
BTC-840215KM
BTC-840215KN
BTC-840215KO
BTC-840215KP
BTC-840215KQ
BTC-840215KR
BTCH-840215KG
BTCH-840215KS
BTCH-840215KT
BTCH-840215KU
BTCH-840215KV
BTCH-840215KX

MEMORANDUM OPINION AND ORDER

Adopted: April 10, 1984; Released: April 10, 1984

BY THE COMMISSION: COMMISSIONER RIVERA CONCURRING AND ISSUING A STATEMENT.

1. The Commission has under consideration: (a) the above-captioned applications of Metromedia, Inc., for consent to the transfer of control of the corporation from John W. Kluge (*de facto* control) to John W. Kluge (*de jure* control)[1]; (b) petitions to deny those applications filed by the California Association of the Physically Handicapped, Inc. (CAPH) and Sue Gottfried, individually and representing as a class all of the deaf and hearing impaired individuals within the viewing area of KTTV-TV, Los Angeles, California (collectively referred to as the petitioners); (c) motions to dismiss or, alternatively, oppositions to those petitions filed by Metromedia; and (d) related pleadings.[2]

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[1] Metromedia is the licensee of the following stations: WNEW(AM-FM-TV), New York, New York; KLAC, KMET(FM) and KTTV-TV, Los Angeles, California; WASH(FM) and WTTG-TV, Washington, D.C.; KRLD and KRLD-TV, Dallas, Texas; WIP and WMMR(FM), Philadelphia, Pennsylvania; KRIV-TV, Houston, Texas; WCVB-TV, Boston, Massachusetts; WFLD-TV, Chicago, Illinois; KJR, Seattle, Washington; WCBM, Baltimore, Maryland; KHOW, Denver, Colorado; WOMC(FM), Detroit, Michigan; and WWBA(FM), St. Petersburg, Florida. The Commission also has before it applications for the transfer of control of common carrier PLMS permits and licenses held by Metromedia and its various subsidiaries. Those applications are similarly *pro forma*. See Appendix A.

[2] A petition to deny and to intervene was also filed by the National Black Media Coalition (NBMC) on behalf of its members and affiliates in cities where Metromedia has radio and television stations. NBMC also filed a petition to deny Metromedia's applications for the renewal of licenses of stations WCVB-TV, Boston, Massachusetts, and WNEW (AM-FM-TV), New York, New York, which incorporated by reference the allegations set out in its petition to deny the transfer of control applications. That pleading essentially argues that Metromedia's applications for transfer of control were erroneously filed on FCC Form 316 and that, as filed, these applications are incomplete, thus raising questions with respect to (1) Metromedia's compliance with its equal employment opportunity (EEO) obligations, and (2) potential anticompetitive practices resulting from the investment in Metromedia, as part of this transaction, by Boston Ventures Limited Partnership (BVLP), a limited partnership. However, on March 15, 1984, NBMC sought Commission approval to withdraw its petitions based on its conclusion that, after careful examination of the materials submitted by Metromedia, grant of these applications would serve the public interest. For the reasons set forth *infra*, we find that Metromedia's use of FCC Form 316 to effectuate this transfer is appropriate. Moreover, our review of the proposed transaction indicates that the interests represented by the investment of the limited partnership and its principals in Metromedia, and other ownership interests of certain of the limited partners in BVLP, present no questions under Commission rules or policies requiring further inquiry. The stock ownership interest of the limited partnership amounts to only a 3.55 percent non-voting stock interest in Metromedia (3 percent after the stock is fully diluted, see footnote 5, *infra*) and the limited partners in BVLP will have no ability to direct, control, or influence Metromedia's operations. Additionally, the total

2. By these applications, John W. Kluge, President, Director, Chairman of the Board and Chief Executive Officer of Metromedia, seeks Commission consent to acquire *de jure* control of the corporation through a so-called "leveraged buy-out." The primary purpose of this transaction is to transform Metromedia from a publicly-traded company to a private company with Mr. Kluge, in effect, buying out the other stockholders of the corporation. To accomplish the buy-out, an acquisition corporation has been formed by the four current members of the Office of the President of Metromedia (Office of the President)[3] and Boston Ventures Limited Partnership (BVLP), a Boston-based investment partnership specializing in management buy-outs and acquisitions. Thereafter, the acquisition corporation will be merged into Metromedia, with Metromedia being the surviving corporation. The buy-out will be financed by funds borrowed from a group of lending banks, as well as by the capital contributions of BVLP and the Prudential Life Insurance Company (Prudential).

3. Following consummation of the buy-out, all of the voting stock will be owned by the four persons who currently constitute the Office of the President and who are all present stockholders of Metromedia. Specifically, Mr. Kluge will own 92.6284 percent of Metromedia voting common stock, and Messrs. Bennett, Duncan and Subotnick will own 2.4572 percent each. All of the voting common stock owned by Mr. Kluge will be pledged to the lending banks and will be transferred to an irrevocable voting trust under which he will exercise sole voting discretion. The other common voting stock issued to Messrs. Bennett, Duncan and Subotnick will also be pledged to the lending banks. BVLP will receive non-voting

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financial stake of this partnership and its numerous principals in Metromedia is, cumulatively and individually, relatively small. Under these circumstances, we can discern no potential for anticompetitive conduct resulting from such interests in Metromedia and other media interests which may be attributable to the partners in BVLP. Finally, the EEO policies and practices of each of Metromedia's broadcast stations were reviewed by the Commission and found to be acceptable at the time of the station's last renewal. There is nothing in the materials initially submitted by NBMC that would alter our earlier determinations or otherwise cause us to now deviate from our usual practice of reviewing EEO related complaints against particular stations in the context of license renewal applications. In this regard, we note that NBMC states that it has met with officials of Metromedia and as a result of discussions between the parties, it is satisfied with the licensee's EEO commitments. Accordingly, we find that withdrawal of NBMC's pleadings is appropriate and its request will be granted.

[3] The members of Metromedia's Office of the President are: John W. Kluge (President and Chief Executive Officer); Robert M. Bennett (Senior Vice President, Broadcasting and Production); George H. Duncan (Senior Vice President, Telecommunications); and Stuart Subotnick (Senior Vice President, Finance and Administration). These individuals currently constitute Metromedia's senior executive management team. In December, 1983, this group made an offer to members of the Board of Directors of Metromedia to buy the company as proposed. The Board of Directors subsequently voted to accept the proposal.

common stock, subject to a "put-call agreement,"[4] which will also be pledged to the lending banks. Prudential will be issued non-voting redeemable preferred stock and detachable warrants,[5] subject to a "put-call agreement," for its investment in Metromedia. The current directors and officers of Metromedia will continue to serve in those capacities and the company's business affairs will continue to be conducted in substantially the same manner following consummation of the buy-out and merger.

4. The applications for consent to the *pro forma* transfer of control of Metromedia to Mr. Kluge were filed on FCC Form 316, commonly referred to as a "short form." It is maintained that Mr. Kluge presently has *de facto* control of Metromedia and, therefore, the transfer to him of additional stock is not a substantial change of control and can properly be applied for on a short form. It is stated that Mr. Kluge, for the past 25 years, has held and exercised the power to determine who will serve on Metromedia's Board of Directors, nominating a majority of its members, with no member a nominee of anyone else. Mr. Kluge also controls Metromedia's management proxy process, since 1959 being a designated proxy in management's annual proxy solicitations. During this period, Mr. Kluge has had the power to control the voting of virtually all of Metromedia's stock at every annual meeting. In Form 10-K Reports and Proxy Statements filed with the Securities and Exchange Commission, Mr. Kluge has been identified as the controlling party of Metromedia. Moreover, it is asserted that the Commission has passed on Mr. Kluge's qualifications in granting 30 long form applications filed by Metromedia over a 23 year period.

The Pleadings

5. *The Petitioners.* Both Gottfried and CAPH oppose Metromedia's use of a short form application. They claim that a short form eliminates the thirty day waiting period before Commission approval and the ability of parties to file petitions to deny that are accorded long form applications. The petitioners maintain that the Commission should refuse to permit this transaction to be completed until action is taken on the

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[4] That agreement provides that BVLP will have the right, commencing seven years after consummation of the buy-out and Merger, to require Metromedia to purchase the stock held by it and, commencing at the same time, Metromedia will have the right to require BVLP to sell its stock to it.

[5] Dilution of stock interests is represented by the shares of non-voting common stock that will be issuable to Prudential upon exercise of the warrants attached to the non-voting redeemable preferred stock purchased by it. If the warrants are exercised, the distribution of the total equity common stock (voting and non-voting) fully diluted will be as follows: Mr. Kluge, 75.5 percent; Messrs. Bennett, Duncan and Subotnick, 2.0 percent each; BVLP, 3.0 percent; and Prudential, 15.5 percent.

allegations raised in petitions to deny filed by them against Metromedia's 1983 license renewal application for KTTV-TV, Los Angeles.[6] Thus, it is urged that by requiring Metromedia to file long form applications, interested parties will be afforded an opportunity to be heard and the Commission will be permitted to properly scrutinize the applications to ensure that their grant will serve the public interest. For the reasons set forth in their petitions to deny the KTTV-TV license renewal application, the petitioners contend that even if filed on long forms, the Commission should deny Metromedia's applications.

6. *Metromedia's Response*. Metromedia filed motions to dismiss or, alternatively, oppositions to the CAPH and Gottfried petitions. It maintains that as petitions to deny, the petitioners' pleadings must be dismissed because such pleadings do not lie against *pro forma* (*i.e.*, short form) applications. Metromedia states that Sections 309(c) and (d) of the Communications Act of 1934, as amended, specifically exempt transfer applications which do not involve a substantial change in ownership or control from petitions to deny. Moreover, it is alleged that the petitioners lack the requisite standing, having failed to show that they would suffer actual injury of a substantial nature as a result of the *pro forma* transfer of control and that any injury they might suffer is protected under the Communications Act. It argues that the petitioners have failed to demonstrate that the substantive concerns raised in the petitions to deny the KTTV-TV license renewal application would be exacerbated by a grant of the transfer of control applications. In this regard, it emphasizes that Metromedia will continue to be the licensee of its stations; that the corporation will have the same officers and directors following the transfer that it had preceding it; and that there will be no changes in the operating policies of the licensee's stations. It is argued that the grant of these applications will in no way threaten the petitioners' opportunity to have their allegations (see footnote 6, *supra*) afforded full and fair consideration in the context of the petitions to deny KTTV-TV's renewal application. Thus, Metromedia urges the dismissal of the petitioners' pleadings directed against the transfer applications.

7. Alternatively, Metromedia states that if not dismissed, the CAPH and Gottfried petitions should be denied as the allegations concerning the use of Form 316 are without merit. It maintains that these applications were properly filed on FCC Form 316 as such forms are intended for

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[6] On October 23, 1983, CAPH filed petitions to deny the license renewal applications of all seven commercial VHF stations in the Los Angeles market, including KTTV-TV. It principally alleges that those licensees have denied qualified handicapped persons employment opportunities and have failed to caption programming for deaf and hearing impaired people. On October 27, 1983, Gottfried filed petitions to deny the license renewals of eight television stations in the Los Angeles market, including KTTV-TV, alleging a similar failure to caption programming for deaf and hearing impaired persons.

transactions which do not involve a substantial change in ownership and control. It states that long forms are designed to elicit information regarding the identity and operational plans (*i.e.*, new efforts to ascertain community needs, new program plans, new proposed commercial practices and new EEO programs) and "pass upon" the qualifications of new parties who propose to control a broadcast licensee. It is argued that grant of these applications will result in no new parties or operational plans for Metromedia; the company's public stockholders (whose identity changes daily and who have never been passed on by the Commission) are being retired and Mr. Kluge, who has been passed on by the Commission in the context of numerous applications and who has exercised *de facto* control of the company, will assume *de jure* control. It further states that the Metromedia applications disclose that there will be no change of the company's officers and directors, programming and ascertainment policies, commercial practices or compliance with EEO obligations and policies. Moreover, it asserts that under recent Commission decisions, a change in ownership is not deemed "substantial" unless it effects a change in control. It states that control in large publicly-traded corporations, such as Metromedia, may not be determined solely by the percentage of voting stock held. It maintains that the applications show that through his stock ownership and corporate offices, Mr. Kluge has exercised continuous *de facto* control over the management and operation of Metromedia for the past 25 years. Further, since 1959, Mr. Kluge has been a designated proxy in management's annual proxy solicitations, having had the power to control virtually all of the company's stock at every annual meeting during that period.

Discussion

8. Section 73.3540 of the Commission's Rules, which authorizes the use of a short form, implements Section 309(c)(2)(B) of the Communications Act, which exempts an assignment or transfer "which does not involve a substantial change of ownership or control" from the thirty day statutory waiting period and from petitions to deny. The test for whether the interest to be transferred is a "controlling one" or "substantial" has generally been (a) whether 50 percent or more of the stock is being transferred, and (b) whether as a result of the transaction 50 percent or more of the outstanding stock will be held by persons whose qualifications to be Commission licensees have not previously been approved of or "passed upon." *Barnes Enterprises, Inc.*, 55 FCC 2d 721 (1975); *Clay Broadcasters, Inc.*, 21 RR 2d 442 (1971). Generally, any transfer which involves the movement of 50 percent or more of a licensee's stock, whether to persons passed upon or not, has required the filing of a "long form" application (FCC Form 315). As an exception to this general requirement, the Commission has allowed a short form to be used when

the transaction involves a stock transfer whereby an existing stockholder with negative (50 percent) control assumes positive control by acquiring all of the remaining stock. *See Barnes Enterprises, Inc.*, 55 FCC 2d at 725, n. 4. In certain cases, however, "control" is not limited to negative control (ownership of 50 percent of the corporation's stock) or *de jure* control (ownership of over 50 percent of the corporation's stock), but can include situations of control "in fact" (*de facto* control), regardless of the amount of stock owned. *See Powel Crosley, Jr.*, 11 FCC 3 (1945); *Lorain Journal Company v. F.C.C.*, 351 F.2d 824 (D.C. Cir. 1965). In *Stereo Broadcasters, Inc.*, 55 FCC 2d 819 (1975), the Commission recognized that the ascertainment of control may involve an issue of fact which must be resolved by the special circumstances presented. Thus, the facts of a particular situation (*e.g.*, who has the power to direct the company's operations; who determines the make-up of the Board of Directors), are relevant to determining where control is situated.

9. Although the proposed transaction will involve the transfer of over 50 percent of the corporation's stock, we find that Mr. Kluge, with his current stock interests and offices, has exercised *de facto* control of the company. Metromedia under the *de facto* control of Mr. Kluge has had its qualifications reviewed and found acceptable by the Commission in connection with our approval of numerous long form applications over the years. In view of the showing submitted, and in the absence of any allegations by the petitioners challenging that showing, we conclude that this transaction will not result in a substantial change of control regardless of the amount of stock being transferred. Thus, where a "passed upon" individual is going from *de facto* control to *de jure* control, the use of a short form is appropriate because such transactions do not involve a substantial change of control. Further, the filing of a short form in this situation not only serves the intent of Section 309(c)(2)(B) of the Act, but is also consistent with the Commission's practice of permitting the use of a short form application to allow an existing stockholder with negative control to acquire a 50 percent interest and assume positive control of the corporation. Nor does this transaction involve a "substantial change in ownership." Although more than 50 percent of Metromedia's voting stock is being transferred by this transaction, almost all of that transferred stock is going to Mr. Kluge, who, as noted above, already is an owner with *de facto* control. Therefore, since there is not a substantial change in the identity of the owners (in that, *inter alia*, there are no new owners with substantial interests to be passed upon by the Commission) and there is not a substantial change in control, in light of Mr. Kluge's present *de facto* control, we find that there is not an ownership change which is material to the policies underlying the "substantial change in

ownership" clause in Section 309(c)(2)(B). Under these circumstances, Metromedia properly applied for Commission consent on FCC Form 316.

10. The petitioners' claims that long form applications should be filed to permit parties to file petitions to deny and require a thirty day waiting period before approval are without merit. Given the participation of the petitioners in this matter, we reject the contention that the use of a short form deprived interest parties of an opportunity to be heard. Finally, in light of our finding that no substantial change of control of Metromedia will result by the grant of these applications, the petitioners' challenges to the Metromedia's license renewal application for KTTV-TV, Los Angeles, are in no way prejudiced by our action today. In this regard, we note that nothing contained in the petitioners' pleadings justifies deviating from our usual practice of addressing allegations directed against a specific broadcast station's license renewal application in that context.

Conclusion

11. We have considered the applications and the pleadings before us in this matter. We find that the petitioners have failed to allege facts that, if true, would establish that a grant of the applications would not be consistent with the public interest. We further find that a grant of the applications set out in the caption and described in footnote 1 would serve the public interest, convenience and necessity.

12. Accordingly, IT IS ORDERED, That the petitions to deny filed by the California Association of the Physically Handicapped Inc., and by Sue Gottfried ARE DISMISSED and, when considered as informal objections, ARE DENIED.

13. IT IS FURTHER ORDERED, That the request of the National Black Media Coalition to withdraw its pleadings IS GRANTED, and its petitions to deny the transfer applications and the 1983 license renewal applications for stations WCVB-TV, Boston, Massachusetts, and WNEW (AM-FM-TV), New York, New York, ARE DISMISSED.

14. IT IS FURTHER ORDERED, That the applications set out in the caption and described in footnote 1 ARE GRANTED.

15. IT IS FURTHER ORDERED, That the Chief, Mass Media Bureau, SHALL MAIL copies of this Memorandum Opinion and Order to the parties to this proceeding.

FEDERAL COMMUNICATIONS COMMISSION

WILLIAM J. TRICARICO, *Secretary*

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*Appendix A-may be seen in FCC Dockets Branch, 1919 M Street, N.W., Washington, D.C. 20554.

CONCURRING STATEMENT
OF
COMMISSIONER HENRY M. RIVERA

RE: Memorandum Opinion and Order Approving Applications to Transfer Control of Metromedia, Inc.

I disagree that these applications are within the purview of Section 309(c)(2)(B) of the Communications Act.[1] The applications involve a substantial change of ownership and, thus, are subject to a thirty day waiting period and petitions to deny pursuant to Sections 309(b) and (d) of the Communications Act.[2] I can concur in their approval, nonetheless, because these statutory requirements have in fact been satisfied.[3] I write separately to dispute the legal analysis advanced in the Memorandum Opinion and Order.

The conclusion that a transfer of 66 percent of Metromedia's outstanding stock is not a "substantial change of ownership" not only defies common sense, it defies the plain language of the statute. By any reasonable measure, the transfer of a majority of a company's publicly held stock must be deemed substantial. The Memorandum Opinion and Order's reliance on the fact that there has been no substantial change in control is misplaced, since Section 309 applies both to changes in *ownership* and changes in control. Had Congress meant to equate the two, as the Commission has done in this case, it could have done so easily. That Congress did not indicates that the terms have independent significance.

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[1] Section 309(b) of the Act specifies that no application "shall be granted by the Commission earlier than thirty days following issuance of a public notice by the Commission of the acceptance for filing of such application or of any substantial amendment thereof." Its purpose is to give interested parties the opportunity to learn of the pendency of an application in order to be able to file a petition to deny before a grant. *See* H.R. Rep. No. 1800, 86th Cong., 2d Sess. 11 (1960); S. Rep. No. 690, 86th Cong., 1st Sess. 2-5 (1959). Section 309(c) (2)(B) exempts from these requirements "any application for . . . consent to an involuntary assignment or transfer under Section 310(b) or to an assignment or transfer thereunder which does not involve a substantial change in ownership or control."

[2] *See* 47 U.S.C. Sections 309(b), (d). The instant decision is lacking in at least one other respect—its failure to address the question of whether Metromedia's media cross-interests may be retained. Ordinarily, grandfathered mass media combinations must be divested when they are transferred to a new licensee; this rule applies to Metromedia's four grandfathered media combinations because they have come under new ownership by this stock transfer. However, unlike the statutory requirement at issue here, the Commission has the latitude to waive this administrative rule, and waiver seems appropriate here because Mr. Kluge retains control of Metromedia both before and after the transfer.

[3] The applications were on file more than 30 days before they were granted and petitions to deny were, in fact, received.

The error of the new gloss placed on Section 309(c)(2)(b) by this decision is also apparent by an examination of its legislative history, which emphasizes the narrowness of that section.[4] The testimony of a key drafter indicates that only a "very limited type of transfer" of ownership or control is within the purview of Section 309(c)(2)(b): the incorporation of a partnership where the partnership transfers its license to the new corporation, and the transfer of the stock of a corporate licensee to the estate of a deceased sole stockholder under the laws of decent and distribution.[5] In the words of Mr. Jennes: "There are the two types of situations which would be excluded by that proviso. Involuntary transfers and pro forma transfers. Everything else is covered."[6] The majority makes no claim — nor could it, persuasively — that the instant transfer falls into either category.[7]

The spirit of Section 309 was not undermined in this case. It will be undermined in the future unless this precedent is disavowed, however, because other substantial changes in ownership can now be approved summarily[8] under the logic of this case based on nothing but a stockholder's naked assertion that *de facto* control is unaffected by the proposed transfer. There is no evidence to suggest that Congress intended this result or that the public interest would be furthered thereby.

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[4] The approval of a short form application in this case is also contrary to the administrative rules implementing Section 309(c)(2)(b) because it does not fall into any of the classes of insubstantial transfers enumerated therein. *See* 47 C.F.R. Section 73.3540(g).

[5] *See* Testimony of Ernest W. Jennes, Esq., on behalf of Federal Communications Bar Association on 1960 *Communications Act Amendments* before the Subcommittee on Communications and Power of the Committee on Interstate and Foreign Commerce, House of Representatives, 86th Cong., 2d Sess., April 12, 1960, at 133.

[6] *Id.*

[7] Metromedia contends that this transfer is *pro forma.* However, if Congress' intent to narrowly confine exceptions to Section 309(b) is to be observed, this contention must fail. Otherwise, parties will be encouraged routinely to claim that a transaction is *pro forma* (and the FCC will be encouraged routinely to accept such claims) to avoid filing long form applications and the attendant public scrutiny. To remain faithful to congressional intent, a long form application should be required whenever 50 percent or more of a licensee's stock is transferred, unless the relative interests of the stockholders remain the same (as in the hypothetical specified in the legislative history).

It is true, as Metromedia notes, that the Commission has previously ruled that a transfer of a majority of a company's stock may be insubstantial and, therefore, suitable for filing on a short form application. *See* Metromedia Motion to Dismiss or, in the Alternative, Opposition to Petition, at para. 16 (citing *Anax Broadcasting, Inc.*, 87 FCC 2d 483 (1981)). To the extent that *Anax* suggests that a transfer of 71 percent of outstanding stock is not a substantial ownership change, its legal soundness is open to question.

[8] *I.e.*, without the opportunity for effective public participation.

CATV Carriage, Mandatory Signal
CATV Carriage, Must Carry Signals
CATV, Channel Assignment
CATV, On-Channel

> **Petition for declaratory ruling which seeks finding that carriage of local UHF station by cable system via converters is consistent with Commission's rules denied. A cable system can carry a UHF television station with mandatory carriage rights via a converter if the cable system explicitly informs its subscribers of the availability of free converters prior to reassigning the relevant station.**
> —*Monterey Peninsula TV Cable*

FCC 84-205

BEFORE THE
FEDERAL COMMUNICATIONS COMMISSION
WASHINGTON, D.C. 20554

In re:

Monterey Peninsula TV Cable
Salinas, California *et al.*
Petition for Declaratory Ruling and for Special Relief

CSR-2378

MEMORANDUM OPINION AND ORDER

Adopted: May 10, 1984; Released: May 21, 1984

BY THE COMMISSION: COMMISSIONER QUELLO CONCURRING AND ISSUING A STATEMENT.

Introduction

1. On June 27, 1983, Sainte Broadcasting Corporation, licensee of Television Broadcast Station KCBA, Channel 35, Salinas, California (hereinafter Sainte), filed the above-captioned petition seeking relief from a then impending change of Station KCBA's channel position on Monterey Peninsula TV Cable's (hereinafter MPTV) cable television system[1] serving

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[1] On October 4, 1983, MPTV filed a supplement informing the Commission that as of the above date it began carrying Station KCBA on Channel 78 on its cable television system.

Salinas, California, *et al.*[2] Subsequently, on July 26, 1983, MPTV filed an opposition to Sainte's petition to which Sainte has responded.[3]

Summary of Pleadings

2. In support of its petition, Sainte argues that Station KCBA's reassignment from Channel 3 to Channel 78 on MPTV's cable television system is violative of the Commission's must carry rules, which require that Station KCBA be made available to all of MPTV's subscribers.[4] Specifically, Sainte contends that Station KCBA's reassignment is violative because 63 percent of MPTV's subscribers, those who do not receive pay services, will be unable to view Station KCBA on its new channel position without a converter. Although MPTV offered to provide its nonpay subscribers with free converters capable of receiving Station KCBA prior to its reassignment, Sainte argues that this is inadequate since these subscribers must first call MPTV to learn how to obtain a converter and at what cost, must order the converter, and must either schedule and wait for installation or install the converter themselves. Sainte maintains that while MPTV may intend to install free converters, its subscribers do not know of this critical fact. Citing *Cablevision, Inc.* (Alma, Michigan), 48 RR 2d 1401, 1404-5, *Recon. denied*, 87 FCC 2d 1095 (1981), and *Rolla Cable Systems, Inc.* (Rolla, Missouri), 50 RR 2d 315, 317-18 (1981), Sainte argues that this does not comport with the Commission's must carry rules. Sainte asserts that the Commission has repeatedly stated that a must carry station, such as KCBA, must be made unrestrictedly available to all cable subscribers. It contends that MPTV carriage of Station KCBA cannot be construed as unrestrictedly available, since nearly two thirds of MPTV's subscribers will not be able to receive Station KCBA without first having to request a converter.

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[2] Sainte also filed a "Request for Discovery" asking that the Commission order MPTV to produce certain documents. MPTV filed an opposition to Sainte's request. The discovery provisions of the Commission's rules, Section 1.311(a), are limited to hearing matters. Consequently, we find that Sainte has no right to seek discovery in this proceeding.

[3] On November 23, 1983, the National Association of Broadcasters (NAB) filed comments in support of Sainte's petition. In arguing for the acceptance of its comments, NAB asserts that since it only became aware of Sainte's petition on October 28, 1983, its comments were filed within the thirty day time period contained in Section 76.7 of the Commission's rules. MPTV has submitted a "Motion to Strike" contending that NAB's filing was untimely by five months, and consequently, it should not be accepted. In response, NAB contends that in view of the Commission's letter of December 9, 1983, to MPTV, asking it for more information, its filing will not cause a delay in the conclusion of this proceeding. Pursuant to the provision of Section 76.7 of the Commission's rules, we find NAB's arguments to be untimely filed, and therefore they will not be accepted. However, in so doing, we note that NAB's arguments have been raised by Sainte in the instant proceeding.

[4] See Section 76.59(a)(1) of the Commission's Rules.

3. Sainte additionally argues that Station KCBA's reassignment violates the intent of the Commission's on-channel carriage rule.[5] Citing the Commission's action in *First Report and Order in Docket 14895*, 38 FCC 683, 732 (1965), Sainte asserts that cable television channels occupied by local stations, such as KCBA, may not be changed merely at the cable operator's whim, that reassignment is subject to complaint, and that non-local signals should be selected over local signals for inferior channel positions on cable systems. Sainte further contends that the re-positioning of Station KCBA will deprive Hispanics of their only Spanish-language television service. In this regard, Sainte notes that the population of the City of Salinas is approximately 38% Hispanic and that many Hispanic households contain at least one person who does not speak English. Moreover, Sainte argues that the displacement of Station KCBA to Channel 78 by MPTV without first furnishing all of its subscribers with free converters, not just those who request one, constitutes discrimination against the Hispanic community. Sainte points out that basic tier subscribers who do not have converters will still be able to view ten English language signals only two of which have must carry status on MPTV's cable system.

4. In addition to its claim of discrimination, Sainte argues that by placing Station KCBA on the expanded portion of its basic tier, MPTV has engaged in an anti-competitive practice. In support of this allegation, Sainte notes that the cable service that replaced Station KCBA on MPTV's basic tier, USA Network, has agreed to make time available to MPTV for the sale of local advertising spots. Consequently, Sainte argues that MPTV and Station KCBA are now in direct competition with each other for the sale of local advertising. Sainte contends that MPTV abused its local cable monopoly power to gain a competitive advantage in the sale of local advertising by placing Station KCBA on the less desirable expanded portion of its basic tier in favor of USA Network. Furthermore, Sainte asserts that MPTV has abused its monopoly power by giving preferential treatment to its co-owned distant network affiliate station KRON-TV (NBC, Channel 4), San Francisco, California, which MPTV continues to carry on the non-expanded portion of its basic tier. Lastly, Sainte contends that Station KCBA's reassignment will result in established viewing patterns being disrupted with an associated loss in viewership and revenues. Sainte asserts that its carriage on MPTV's cable system is especially important since some sixty percent of its audience views its signal via cable in MPTV's service area.

5. In its opposition, MPTV argues that Station KCBA's reassignment to Channel 78 is consistent with the Commission's rules and policies. MPTV states that to provide its subscribers with additional programming

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[5] See Section 76.55(a)(2) of the Commission's Rules.

choices it expanded its basic tier from 12 to 16 channels by using a free converter. In connection with this expansion, Station KCBA has been moved from Channel 3, which is now occupied by USA Network, to Channel 78. MPTV contends that in order to determine a rational approach to the method of expanding its basic cable service and to avoid widespread subscriber dissatisfaction it commissioned two direct mail bilingual surveys limited to those of its subscribers who do not receive pay services. The first survey was conducted to determine the least desirable programming on its basic tier. This survey found that Spanish language programming was the least preferred category of programming and that Station KRON-TV was the least popular duplicating network station. Thereafter, a second survey was conducted to identify which station, KCBA or KRON-TV, would be reassigned to a new channel position. This survey revealed that 87% of the respondents preferred moving Station KCBA. In response to the above surveys, Station KCBA was reassigned to its new channel.

6. MPTV contends that in moving Station KCBA it has not violated the Commission's rules since the carriage of a UHF must carry station on a midband channel via a converter is not prohibited by the Commission's Rules. Citing *Gill Industries*, 48 RR 2d 994 (1980), and *Clear Television Cable Corp.* (Berkley Township, New Jersey), 46 FCC 2d 744 (1974), MPTV asserts that should a cable system choose under the Commission's Rules to provide a UHF must carry station via a converter, it must first provide all its subscribers with free converters so that they have full time access to the subject station. MPTV maintains that by offering to provide converters free of charge to all its non-pay subscribers prior to Station KCBA's reassignment, it has met its obligations under the Commission's Rules. MPTV notes that its offer to provide converters free of charge was placed in each subscriber's monthly bill, was advertised on local radio stations, and newspapers, and on MPTV's cable system on various cable channels. Moreover, MPTV points out that over 22,000 of its current subscribers who receive pay services already have a converter capable of reviewing Station KCBA and all new subscribers will automatically be provided with converters. Thus, in response to Sainte's contention that it must provide all of its subscribers with a converter, not just those who request one, prior to moving Station KCBA, MPTV asserts that short of forced entry into those of its subscribers homes who have chosen not to avail themselves of the offer of a free converter, it has done all it possibly can do to insure that its subscribers have access to Station KCBA.

7. As to Sainte's argument that the reassignment of Station KCBA violates the intent of the Commission's on-channel carriage rule, MPTV maintains that Sainte's only support for this proposition is a strained interpretation of one of the Commission's earliest decisions regarding the

regulation of cable television. MPTV argues that the Commission's use of the term "inferior" to describe a channel position in the decision cited by Sainte was limited to the context of possible degradation of picture quality. Furthermore, MPTV argues that the Commission clarified any ambiguity in its prior decision by holding in the *Second Report and Order*, that so long as the on-channel rules are met, cable operators are free to decide how their channels are to be utilized. *Second Report and Order in Docket 14895*, 2 FCC 2d 725, 754 (1966). MPTV maintains that the Commission has long held that its on-channel carriage rule, Section 76.55(a)(2), does not apply to UHF stations such as KCBA. *Teleprompter Cable Communications Corp.* (Richland, Washington), 42 FCC 2d 1122 (1973); *Ausauble Communications, Inc.* (Plattsburg, New York), 51 FCC 2d 412 (1978). Moreover, MPTV notes that as recently as 1980, the Commission, in denying a request for the adoption of uniform carriage rules for UHF stations, held that the problem of UHF stations not having on-channel carriage rights does not rise to the level of discrimination and any discrimination that does result is minimal and is a consequence largely of the technology involved. *Cable Television Service*, 48 RR 2d 553, 557 (1980). Thus, MPTV asserts that the Commission has flatly rejected Sainte's contention that UHF stations have a vested right to be carried on the same channel on which they have been carried in the past.

8. MPTV further argues that Station KCBA's reassignment will not, as Sainte contends, deprive thousands of Hispanics of their only Spanish language service and unfairly discriminate against Station KCBA. MPTV points out that Station KCBA is not the only Spanish language television service or video service in the area. MPTV maintains that listings in the TV Guide for the area include at least six other stations which carry Spanish language programming. Moreover, at least one third of Station KCBA's weekly programming is in English not Spanish. Furthermore, Station KCBA will not be relocated on an upper tier but will continue to be located on MPTV's basic tier now expanded to 16 channels. Lastly, MPTV points to the fact that at the time Sainte filed its petition with the Commission there was pending in the Superior Court of the State of California, County of Monterey, a lawsuit brought by Sainte against MPTV charging it with violations of California's Civil Rights Statutes because of its proposed reassignment of Station KCBA. The Court in that proceeding denied Sainte's request for a preliminary injunction and found that the then proposed reassignment "does not impair the ability of any viewer to view Station KCBA's programming." Furthermore, the Court found that there was insufficient evidence of racial or ethnic discrimination.[6] Thereafter, Sainte voluntarily withdrew its suit, with prejudice.

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[6] *Sainte Broadcasting Corporation v. Monterey Peninsula TV Cable*, No-79222 (Super. Ct. Monterey County, CA 1983).

9. MPTV further contends that Sainte's allegations of anti-competitive practices flowing from Station KCBA's reassignment are meritless. MPTV maintains that what Sainte is really objecting to is MPTV's engaging in the sale of local advertising spots in competition with Station KCBA. MPTV asserts that if there are any anti-competitive practices involved in this proceeding, it is Sainte's attempt to limit the potential competition provided by MPTV. MPTV maintains that it has no monopoly power in the product market. In this vein, MPTV asserts that the sale of local television advertising time put forward by Sainte is an inappropriate product market for antitrust purposes. Rather, MPTV claims that because the sale of local television advertising spots is reasonably interchangeable with a variety of other forms of advertising, such as newspapers, radio, and other media, the appropriate product market should include all advertising media in the Salinas-Monterey ADI. MPTV argues that it cannot seriously be contended that it has any degree of market power in the broad advertising market within the Salinas-Monterey ADI. MPTV contends that it is doing no more than seeking entry into the market through contractual arrangements with USA Network. The entry of a new competitor in this manner can only have a positive effect on the market place. Thus, MPTV argues that its entry increases rather than decreases competition.

10. Furthermore, MPTV asserts that in any event Sainte's anti-competitive arguments are illusory. MPTV points out that Station KCBA's access to its over-the-air audience and hence to advertising revenues has not been affected by Station KCBA's reassignment. Moreover, Station KCBA has not been removed from MPTV's cable system, and therefore it still has access to its cable audience. MPTV also contends its retention of Station KRON-TV on the non-expanded portion of its basic tier does not constitute an anti-competitive practice. MPTV points out that Station KRON-TV has been carried on its system since early 1952. MPTV further argues that Sainte has not shown how its audience or advertising sales can be aided when it remains in exactly the same position it has in the past, when Station KCBA's over-the-air coverage is uneffected, and when Station KCBA is carried on the cable system. The suggestion that any potential loss in Station KCBA's audience due to its reassignment would benefit Station KRON-TV is not viable, since it is doubtful that viewers would switch *en masse* to a duplicated network affiliate such as Station KRON-TV. Moreover, MPTV asserts that a corporation may enter into a contractual relationship with an affiliated corporation and refuse to do so with a non-affiliate without violating antitrust statutes. Lastly, MPTV argues that Sainte's economic injury argument lacks the specific factual support required by the

Commission from a party who is seeking additional protection beyond that conferred by the Commission's Rules.

11. In its reply, Sainte maintains that the picture painted by MPTV regarding its program to inform its subscribers of the availability of free converters is deceptive. Sainte contends that as of May 27, 1983, MPTV had 36,440 basic subscribers without converters. Due to the large number of subscribers without converters, Sainte avers that MPTV's assertion that it would make converters available to all its subscribers prior to any reassignment of Station KCBA was groundless since the task was a physical impossibility in the time available between the announced reassignment and Station KCBA's reassignment to Channel 78. Thus, Sainte contends that MPTV had no real intention of satisfying the Commission's "must carry" rules prior to switching Station KCBA to its non-basic tier. Furthermore, Sainte maintains that MPTV's "HotLine" phone numbers which subscribers are directed to call for free converters are not working properly. Additionally, Sainte asserts that subscribers who do reach MPTV are being urged to come in and pick up a converter rather than have it installed. Furthermore, Sainte asserts that MPTV's direct mail campaign is defective because the notices inserted in cable subscribers' monthly bills are captioned "A Special Message to Our Spanish Speaking Subscribers". Sainte maintains MPTV's notice ignores the fact that one-third of Station KCBA's programming day is English language religious fare.

12. Regarding the mandatory carriage rules, Sainte argues that merely making converters available does not conform to Commission requirements. In support of this contention, Sainte points to the Commission decision in *Cablevision, Inc.*, 48 RR 2d 1401, 1404-05, *recon. denied*, 87 FCC 2d 1095 (1981), in which the Commission stated that: "[t]he violation results from the fact that . . . the converter, even if free, was provided only upon explicit request by subscribers. Such carriage of a mandatory signal does not comport with the requirements of the signal carriage rules." In the above decision, Sainte argues, the Commission denied as violative of its rules precisely what MPTV proposes to do in this instance: provide converters solely upon explicit request of its subscribers. Thus, Sainte argues that to be consistent with prior Commission precedent, MPTV must make converters available to all its subscribers without their explicit request.

13. Furthermore, Sainte restates its contention that the Commission intended to benefit UHF as well as VHF stations when it adopted its on-channel carriage rule. While Sainte recognizes that the language it cited from the *First Report and Order, supra,* occurs primarily in the context of a discussion of degradation of picture quality, it nevertheless believes

that taken as a whole the Commission intended to vest UHF stations with the right to retain their existing channel position.

14. Regarding its antitrust allegations, Sainte argues that MPTV has mischaracterized both the geographic and product markets which it monopolizes. Sainte contends that it is this error which permits MPTV to deny that it has monopoly power. Sainte maintains that the proper geographic market is MPTV franchise areas rather than the Salinas-Monterey ADI as proposed by MPTV. The relevant product market is the market for cable transmission services rather than the general advertising market as put forth by MPTV. As the sole provider of cable services in its franchise area, Sainte argues that MPTV clearly has monopoly power. Sainte asserts that MPTV's unilateral displacement of Station KCBA is nothing more than a refusal to deal, since MPTV in so doing has refused to provide Station KCBA with adequate and nondiscriminating access to its cable system. Sainte avers that a monopolist's refusal to deal need not be absolute. All that need be shown is that the access provided is granted on such restrictive terms that its effect upon competition is tantamount to an absolute refusal.

15. On August 19, 1983, Sainte also filed a "Motion for Expedited Treatment, For Issuance of Show Cause Order and For Institution of Forfeiture Proceeding." Since the factual allegations that give rise to Sainte's August 19, 1983, filing are the same as those that form the basis of its request for declaratory ruling, we will consolidate both of Sainte's petitions and address them in this proceeding. As would be expected, Sainte's arguments in support of its August 19, 1983, petition essentially restates the allegations raised in its petition for declaratory ruling. However, in addition to its prior arguments, Sainte contends that in retaliation for filing its declaratory ruling petition, MPTV moved Station KCBA from Channel 19, on which MPTV had proposed to carry Station KCBA, to Channel 78. Sainte asserts that MPTV's placement of Station KCBA on Channel 78 is discriminatory because it requires cable viewers to switch their television dials over 50 positions before reaching it.

Discussion

16. Sainte has petitioned this Commission to find that MPTV's carriage of Station KCBA on Channel 78 is violative of the Commission's mandatory carriage rules. We do not so hold. In adopting mandatory carriage rules, one of the Commission's objectives was to insure that local stations would be carried by cable television systems thus insuring their access to the audience they are licensed to serve. *Cable Television Report and Order*, 36 FCC 2d 143, 173 (1972). In prior decisions involving the carriage of a mandatory UHF station via free converters, the Commission has held that cable systems have a general obligation to provide converters free of charge to any subscriber who would otherwise not be

able to view the relevant station. *Rolla Cable Systems, Inc., supra, Cablevision, Inc., supra,* and *Clear Television Cable Corp., supra.* In applying this requirement, the Chief of the Mass Media Bureau and the Chief of the former Cable Television Bureau have interpreted this obligation to mean that a cable system must take reasonable steps to apprise its subscribers of the availability of free converters prior to commencing carriage of a UHF must carry station where a converter is necessary for its reception. *King Video* (San Andreas, California), Mimeo No. 6635 (released September 22, 1983); and *Gill Industries, supra.* We today affirm this interpretation of our prior decisions in this area. In upholding this interpretation, we note that unlike the cases cited by Sainte in support of its petition; i.e. *Cablevision, Inc., supra*[7], *Rolla Cablevision, supra,* and *Clear Television Cable Corp., supra,* MPTV prior to commencing carriage of Station KCBA via converters explicitly made it known to its subscribers that converters capable of receiving it were available free of charge. *See* paragraph 17, *infra.*

17. The decision of certain subscribers not to accept free converters once they have been reasonably informed of their availability cannot be said to be under the control of the cable operator. Thus, we see no reason why a cable television operator should be prohibited from carrying a UHF must carry station on its system via a converter because certain of its subscribers have chosen not to avail themselves of the offer of a free converter. In so doing, the cable operator will maintain broad control over the placement of signals on the cable system. In this instance, we see no countervailing public interest reason why this right should be circumscribed. Applying the above standard, we find that MPTV has taken reasonable steps to inform its subscribers of the availability of free converters prior to commencing its carriage of Station KCBA on Channel

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[7] Sainte alleges that in *Cablevision, Inc., supra,* subscribers were informed of the availability of free converters. Sainte's allegation in this regard is at best strained. In the Opposition to Second Supplement filed October 6, 1980, in this proceeding, the cable operator merely recited in the context of its subscribers choosing between two available converters ". . . all subscribers are informed of the options for converters that are available." There is no indication at what time or under what circumstances subscribers were informed of the availability of converters. Moreover, there is no evidence demonstrating that the cable operator took any explicit steps to inform its subscribers of the availability of free converters prior to reassigning the relevant station. To the extent, however, that our decisions in *Cablevision, Inc., supra,* and *Clear Television Cable Corp., supra,* and the Bureau's decision in *Rolla Cable Systems, Inc., supra,* may have been read by some as suggesting that providing notice of the availability of free converters would be insufficient to comply with our mandatory carriage rules, we believe that the policy enunciated in *Gill Industries, supra,* and *King Video, supra,* is a more reasonable interpretation of the rules' requirements. We therefore conclude that the latter precedent should control in this case.

78.[8] It did so by placing notices in its subscribers' monthly bills; by placing notices on local radio stations, and in local newspapers; and by running notices on its own cable system all informing its subscribers as well as the public at large of the availability of free converters.[9] Furthermore, to reduce the possibility of any future impact upon Station KCBA, MPTV is providing all new subscribers with converters capable of receiving Station KCBA when they are connected to the cable system. Consequently, we find MPTV's carriage of Station KCBA to be consistent with our mandatory signal carriage rules.[10] Additionally, we note that MPTV's decision to provide free converters has significantly benefited its subscribers who do not receive pay services. By providing free converters, MPTV has expanded the number of channels available to them from 12 to 16. Thus, those subscribers who do not receive pay services will get four more channels.

18. Sainte also contends that MPTV violated the intent of the Commission's on-channel carriage rule which it maintains was adopted in part to prohibit cable operators from switching the channel position of UHF as well as VHF must carry stations once their channel position had been established on the cable system. We find this argument to be unpersuasive. The Commission has held that as long as a cable system meets its on-channel carriage obligations it should be free to decide how the other channels are utilized on its system. *Second Report and Order in Docket No. 14895, supra.* To meet its on-channel carriage obligations, in pertinent part, a cable system operator need only carry a VHF television station with mandatory carriage rights on the same channel number on which it is broadcasting over-the-air. *See Teleprompter Cable Communications Corp., supra,* and *Ausauble Communications, Inc., supra.* Furthermore, the Commission, in a proceeding denying UHF television stations uniform carriage rights, has found that any discrimination suffered by UHF television stations because they do not have on-channel carriage rights is minimal and largely the result of the technology involved; i.e., cable systems distribute all television signals on VHF frequencies thus requiring the conversion of UHF channels to VHF channels with consequent changes in channel numbers. *Cable Television Service,* 48 RR 2d at 557. Therefore, we find that Station KCBA has no right to demand continued carriage on its prior channel position on MPTV's cable system.

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[8] Prior to switching Station KCBA, MPTV installed all but four of the 1389 converters that had been requested. The remaining four converters were installed one day later.

[9] In addition, MPTV attempted to place notices on local television stations, including KCBA. Its request for time was refused by all the relevant television stations.

[10] We will require MPTV to continue to provide specific notice of the availability of free converters for a one year period from the date it began carrying Station KCBA on its new channel position.

19. Additionally, Sainte's contention that MPTV reassigned Station KCBA to its new channel position to capture an anti-competitive advantage in the sale of local television advertising spots on its cable system is unsupported. Although the Commission does not enforce the antitrust laws as such, it does take cognizance of the policy of those laws and considers them where appropriate in making public interest determinations. *Teleprompter Corporation,* 87 FCC 2d 531, 541 (1981). One of the stated objectives of the Commission's signal carriage rules is to assure that local stations will be carried by cable television systems thus insuring their access to the audience they are licensed to serve, *Cable Television Report and Order, supra.* Sainte's antitrust allegations revolve around the proposition that MPTV has failed to provide it with access to its cable audience. In view of our finding that Station KCBA's carriage is consistent with our signal carriage rules, we conclude that MPTV is providing Station KCBA with access to its cable audience. This finding refutes the basis for Sainte's antitrust allegations even if we were to accept its definition of the appropriate product and geographic market. Thus, we find that MPTV has not engaged in an anti-competitive practice by reassigning Station KCBA to its new channel position.

20. Sainte also alleges that the switch in Station KCBA's channel position constitutes an act of discrimination against the Hispanic community which in addition will cause it undue economic injury. However, we find that Station KCBA has not been discriminated against as a consequence of its reassignment by MPTV. Station KCBA will continue to have access to its Spanish language audience by means of the free converters supplied by MPTV. Moreover, as a consequence of MPTV channel expansion, its basic tier subscribers will have access to *four*[11] heretofore unavailable services thus expanding diversity on MPTV cable system. Our finding in this regard is consistent with the Superior Court of the State of California's denial of Sainte's request for a preliminary injunction alleging discrimination under California's civil rights statutes. The court in denying Sainte's request for a preliminary injunction found that Station KCBA had not been discriminated against as a consequence of its reassignment because it could still be viewed by its cable audience via the free converters supplied by MPTV. *Sainte Broadcasting Corporation v. Monterey Peninsula TV Cable, supra.* Finally, we find that Sainte has failed to introduce sufficient evidence to warrant special relief based upon its claim of economic injury flowing from Station KCBA's reassignment. *Northern New England Television* (Hanover, New Hampshire), 83 FCC 2d 418 1980; *Fetzer Cablevision* (Kalamazoo, Michigan), 50

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[11] Two of the additional services now provided, CBN and C-SPAN, were previously carried on a shared basis with other signals on MPTV's cable television system.

FCC 2d 737 (1975); and *Cable Television Report and Order*, 36 FCC 2d at 179.

21. Lastly, Sainte contends that MPTV commenced carriage of Station KCBA on Channel 78 rather than on Channel 19 in retaliation for filing Sainte's petition before the Commission. As a result Sainte maintains that cable viewers who do not receive pay services, and thus must use the free converters provided by MPTV, must now switch their television dials over fifty positions before reaching Station KCBA. The record does not support Sainte's allegation. A review of the record reveals that in reality MPTV switched Station KCBA from Channel 19 to Channel 22, not to Channel 78 as Sainte maintains, at the request of the Forestry Service. The Forestry Service requested that MPTV not use Channel 19 because it was periodically experiencing interference to its emergency communications from cable systems in California using Channel 19. Consequently, MPTV moved Station KCBA to Channel 22 on its cable system. In making its argument, Sainte has failed to realize that MPTV's free converters "up-convert" MPTV's midband channels from 16-22 to 72-78. Thus, even if Station KCBA were carried on Channel 19, the channel upon which MPTV had originally indicated Station KCBA would be carried, it would have been "up-converted" to Channel 75 on MPTV's subscribers television sets using free converters. Consequently, MPTV's reassignment of Station KCBA from Channel 19 to Channel 22 had the effect of moving Station KCBA from Channel 75 to 78, three dial positions for those of MPTV's subscribers who do not receive pay services. Furthermore, to watch one of the four signals on the expanded portion of MPTV's basic tier, a subscriber need only move his or her television set's UHF dial between channels 72 to 78.[12] To watch the remaining 12 signals that comprise the non-expanded portion of MPTV's basic tier a subscriber need only move his or her television set's VHF dial. Therefore, MPTV's subscribers need not switch their television sets' dials over fifty positions to view Station KCBA. Consequently, we do not find that MPTV retaliated against Sainte for the filing of its petition.

22. In view of the above, the Commission finds that a grant of Sainte's declaratory ruling petition as well as its special relief request and petition for forfeiture would not be in the public interest. Additionally, in view of our finding today that MPTV's carriage is consistent with our rules, we find that the public interest would not be served by a grant of Sainte's request for forfeiture and Order to Show Cause.

23. Accordingly, IT IS ORDERED, That the Petition for Declaratory Ruling and for Special Relief, CSR-2378, filed by Sainte Broadcasting Corporation IS DENIED.

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[12] The four signals that comprise the expanded portion of MPTV expanded basic tier are carried on Channels 72, 73, 76 and 78.

24. IT IS FURTHER ORDERED, That the Motion For Issuance of Show Cause Order, and For Institution of Forfeiture Processing IS DENIED.

FEDERAL COMMUNICATIONS COMMISSION
WILLIAM J. TRICARICO, *Secretary*
May 10, 1984

Concurring Statement
of
FCC Commissioner James H. Quello

In re: Monterrey Peninsula TV Cable

I would like to emphasize at the start that if subsequent events demonstrate that today's interpretation of the mandatory carriage rules in any way undermines the basic purpose of these rules, then I shall urge taking whatever steps are necessary to protect the public's ability to receive local broadcast service.

I reluctantly support this decision for three reasons. First, the Commission has previously determined that cable operators need not carry UHF stations on the same "bank" of channels as VHF stations in order to meet their mandatory carriage obligation.[1] Thus, the issue presented here is not whether the cable operator can place station KCBA on a channel that requires use of a converter but whether these converters are sufficiently dispersed throughout the community to meet the cable operator's obligation to provide carriage of this channel. Second, it is evident that all reasonable steps are being taken to publicize the fact that a converter may be obtained simply by asking for one. Finally, this is a relatively narrow fact situation, and it is a temporary problem because normal turnover among cable subscribers will continue to raise the percentage of cable households with converters.

No one is more interested than I in ensuring that local broadcast stations continue to have access to their audiences. Nevertheless, once reasonable access has been assured, this Commission should take care not to overregulate to the detriment of cable subscribers.

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[1] Amendment of Section 76.55(a) of the Cable Television Service Rules, FCC Release No. 80-570 (October 22, 1980), 48 Rad. Reg. (P&F) 553.

Business Radio Service, Eligibility
Business Radio Service, Frequencies
Frequency, Loading

Memorandum Opinion and Order adopted affirming Private Radio Bureau's cancellation of 800 MHz trunked channels for failure to meet the loading requirements of Rule 90.366(d).
—*Motek Engineering*

FCC 84-196

BEFORE THE
FEDERAL COMMUNICATIONS COMMISSION
WASHINGTON, D.C. 20554

In the Matter of Application for Review of

Specialized Mobile Radio Station WZZ-545, licensed to Motek Engineering San Jose, California

MEMORANDUM OPINION AND ORDER

Adopted: May 10, 1984; Released: May 17, 1984

BY THE COMMISSION:

1. The Commission has for consideration Motek Engineering's Application for Review of the Private Radio Bureau's Order issued September 23, 1983. The Order denied Motek's Petition for Reconsideration of the Bureau's March 9, 1983, determination which deleted 15 of Motek's 20 authorized channels for Specialized Mobile Radio System (SMRS) WZZ-545. The 15 channels were taken back for reassignment to waiting list applicants in the San Francisco area as a result of Motek's failure to meet the minimum loading of mobile units specified in Rule 90.366(d).

Background

2. On June 27, 1979, Motek applied for a 20 channel SMRS station electing staged construction. As noted in the Bureau's order, Mr. Johnny Champ, President of Motek, was aware of the applicable rules for staged construction which required construction of the first 5 channels within one year and loading to 70% of capacity (350 mobiles) within two years. On October 24, 1979, Mr. Champ wrote the Bureau's Licensing Division stating that he had been assured by his equipment manufacturer of

equipment availability and that he could implement his system within one year.

3. Motek was granted a license for 20 channel SMRS station WZZ-545 on November 8, 1979. Motek completed construction of the initial 5 channels on October 23, 1980.

4. On June 1, 1981, the Bureau granted Motek's request for waiver of the requirement that the first five channels be loaded to 350 mobiles by November 8, 1981. [See former Rule 90.375(e)(now 90.366(d))].[1] Motek was given five additional months until April 8, 1982 to load the first five channels. The five month extension was granted to account for five months which elapsed between formal notification by Northern California licensees that co-channel interference problems existed and the assignment of substitute channels as requested by these licensees to alleviate the reported problems. The Bureau explicitly stated in its letter granting Motek's waiver request that "delays in the manufacture or shipment of equipment provide no basis for an extension of the loading period" and that the matters which Motek raised in that regard were inadequate to support its extension request.[2]

5. On March 9, 1983, the Bureau advised Motek that it was reclaiming 15 of its authorized 20 channels for reassignment to waiting list applicants in the San Francisco area. The Bureau's determination was based on the fact that as of February 8, 1983 (10 months after the extended loading period), Motek had only 281½ of the minimum 350 mobiles required by Rule 90.366(d) associated with its SMRS station. As of March 1983, almost one year after the first five channels were to have been loaded to 350 mobile stations, Motek still had not reached the prescribed level.

The Bureau's Order Denying Motek's Petition for Reconsideration

6. Motek's Petition for Reconsideration was denied by the Bureau on September 23, 1983. In reaching this decision the Bureau noted that Motek had failed to meet the express loading conditions of its authorization, that its explanation that its manufacturer was at fault provided no basis for granting the relief requested, and that the Commission cannot insure an entrepreneur against business losses at the expense of other entrepreneurs who are waiting for additional spectrum. It also noted that it had recovered more than 600 SMRS 800 MHz trunked channels for

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[1] Part 90 of the Commission's Rules was amended effective October 16, 1982, by our adoption of our *Second Report and Order* in Docket No. 79-191, 90 FCC 2d 1281 (1982). Rule 90.375 was amended and is now Rule 90.366. 90.366 did not change the construction and loading requirements for existing SMR systems.

[2] In its Application for Review Motek attempts to diminish the significance of this notice by characterizing it as a form letter. It was in fact a letter written in specific response to Motek's waiver request.

reassignment to waiting list applicants. The Bureau concluded that Motek had failed to show that it had significantly more mobiles associated with its system as of February 8, 1983, than the 281½ mobiles reflected by the Bureau's licensing records. In fact, Motek's own records indicated only 261 mobiles. Citing our decision in *P & R Temmer*, 93 FCC 2d 1051 (1983), *appeal docketed*, No. 83-1580, D.C. Cir., filed August 29, 1983, the Bureau stated that Motek's dealings with its supplier were the result of Motek's independent equipment and marketing decisions and did not release Motek from the Commission's loading requirements.

Motek's Application for Review

7. In its Application for Review Motek seeks reinstatement of its 20 channel authorization for WZZ-545. Motek asserts that the Bureau failed to give credit for all mobile units associated with its system and that it was serving 414 mobiles as of April 8, 1983, the date of Motek's Petition for Reconsideration. In addition, Motek maintains that the denial of its reconsideration request was unfair in that the Bureau's failure to consider control stations for loading purposes was inconsistent with our *Memorandum Opinion and Order* terminating PR Docket No. 79-191 (FCC 83-474, released November 1, 1983), which was adopted shortly after the Bureau's September 23 Order. Motek indicates that at the time of its Petition for Reconsideration it was serving 65 control stations and 414 mobiles, for a total of 479 units. Finally, Motek argues that the Bureau failed to consider "the captive nature of Motek's relationship" with its equipment manufacturer which impeded Motek's ability to meet the loading requirements.

Discussion

8. We have considered Motek's arguments and there is no evidence that the Bureau's finding of 281½ mobiles underestimated the actual number of mobiles which were in operation on February 8. Motek was afforded the opportunity to demonstrate the Bureau's figure was incorrect and failed to do so. Moreover, Motek's own records reflected even fewer mobiles associated with its system as of the date in question. Motek's contention that it had 414 mobiles, as of April 8, 1983, the date of its Petition for Reconsideration, is irrelevant. The only issue is whether Motek was loaded to the prescribed level by April of 1982. It was not.[3]

9. Also, with regard to control stations Motek does not contend that it would have met the minimum loading standard if its control stations were considered in its February 8 mobile count, and even if it had, it would not be relevant to the fact that at the time this system was to be loaded control stations were not counted for loading purposes. We therefore

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[3] Although Motek claims 414 mobiles in operation as of April 8, Motek's own records reflected only 272 mobiles associated with its system as of that date.

reject Motek's request that we consider control stations based on our subsequent policy change in Docket 79-191, *supra.*

10. Motek claims that it is hampered by "the captive nature" of its relationship with its equipment manufacturer in that it must rely on the manufacturer to provide loading records and depend on the manufacturer's sales force to load its system. Consequently, Motek maintains that it is not capable of providing exact loading figures as of a specific date. The nature of Motek's relationship with its supplier is the result of Motek's independent business judgment and may not be used to absolve Motek or any other licensee from the loading requirements our rules. See *P&R Temmer, supra.*

11. Finally, we do not agree with Motek's assertion that recovery of 15 of its channels lacks fundamental fairness. Motek ordered equipment for additional channels in early 1983 in disregard of Rule 90.366(d) which requires that a licensee demonstrate 70% loading (350 mobiles) of the initial 5 channel stage prior to construction of the next stage. Moreover, Motek's practice of heavily loading its system with 20 channel mobile users despite the Bureau's March 9, 1983, determination that it was only entitled to a 5 channel system was questionable and cannot be considered as a mitigating circumstance.

12. Based on all of the foregoing, we affirm the Bureau's March 9, 1983, action which deleted 15 channels from Motek's SMRS trunked facility WZZ-545.[4] The deleted channels should be routinely reassigned by the Bureau.

13. Accordingly, Motek's Application for Review is denied.

FEDERAL COMMUNICATIONS COMMISSION
WILLIAM J. TRICARICO, *Secretary*

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[4] We deny Motek's alternative request, made without supporting arguments, that we set aside the Bureau's action and designate this matter for hearing. See *P&R Temmer, supra,* and *AAT Electronics Corporation,* 93 FCC 2d 1034 (1983), *appeal docketed,* No. 83-1657, D.C. Cir., filed August 29, 1983.

Common Carrier, Access Charges Distributions

Order Granting Waiver until June 1, 1985, adopted waiving §§ 69.605(d), 69.607, 69.608, 69.609, and 69.610, which sets forth distribution regulations for National Exchange Carrier Association (NECA) so that NECA can compute payments to pool participants more closely tracking settlements model.
—*MTS/WATS Markets Structure*
CC Docket No. 78-72, Phase I

FCC 84-204

BEFORE THE

FEDERAL COMMUNICATIONS COMMISSION

WASHINGTON, D.C. 20554

In the Matter of

MTS and WATS Market Structure | CC Docket 78-72 Phase 1

ORDER GRANTING WAIVER

Adopted May 14, 1984; Released May 16, 1984

BY THE COMMISSION:

1. Before the Commission is a waiver petition filed by the National Exchange Carrier Association, Inc. (NECA). There were no oppositions filed in response to NECA's petition. NECA seeks a waiver until June 1985 of the Commission's access charge rules as they relate to the distribution of pooled revenues. 47 C.F.R. §§ 69.605(d), 69.607, 69.608, 69.609, and 69.610. NECA suggests an alternative distribution scheme that would more closely track the settlements model.

2. Under the settlements model, all pool participants earn a uniform rate of return. NECA claims that the distribution rules adopted by the Commission depart from the settlements model in two respects: (1) since the net balance of an exchange carrier is calculated by combining the hypothetical net balances for all access elements (except billing and collection) and multiplying that sum by a residue factor based only on the carrier common line residue, exchange carriers in the traffic sensitive pool may not earn a uniform rate of return; and (2) since the Commission's rules do not segregate expense and return on investment components for

the common line elements, exchange carriers in the carrier common line pool may not earn a uniform rate of return.

3. NECA proposes to address the first problem by developing net balances for each of the pools separately. It seeks a waiver of Section 69.607 to permit it to do this. With respect to the second problem, NECA seeks a waiver of Sections 69.608 and 69.609 to permit identification of separate expense and return components for the common line pool participants, rather than a single revenue requirement that includes both expenses and return on investment. This approach tracks the rules' computation of hypothetical net balances for the traffic sensitive elements, and assures that all exchange carriers participating in the common line pools receive a uniform rate of return with respect to the common line elements. In addition, NECA requests that the end user revenues received by each exchange carrier be deemed equal to that carrier's end user revenue requirement for purposes of determining monthly carrier common line distributions, since the Commission's rules do not provide a mechanism for allocating expenses and related investments between the end user and carrier common line categories.

4. In the *Third Report and Order* in this docket, we adopted the settlements model for the distribution rules.[1] In doing so, we recognized the pool participants' desire for a uniform rate of return. We also expressed concern, however, that such a method of compensation provides little or no incentive for an exchange carrier to improve efficiency. But, given the press of time, we left the possible development of a superior alternative to a later date and adopted rules to track the settlements model. As NECA points out, however, those rules do not precisely follow the settlements model since differing rates of return may obtain for the pool participants, depending on whether the "residue factor" equals 1.0., and whether the ratio of common line investment to expense varies among participants. It does not appear that the proposals submitted by NECA create any greater incentives for inefficiency than do the rules adopted by the Commission, and they do more closely approximate the settlements model's uniform return. Therefore, we will grant NECA's request for a temporary waiver of the part 69 distribution rules.

5. In its petition, NECA expresses a willingness to provide the Commission with a report and recommendations for long-term resolution of the concerns raised by its waiver request. We will require such a report to be filed by November 15, 1984. At that time we may begin a rulemaking proceeding to modify the distribution formulae in Part 69 of the rules as either an interim or long-term solution to the problems presented by NECA of a lack of uniform returns. We may also take that opportunity to

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[1] 93 FCC 2d 241, 48 Fed. Reg. 10319 at para. 332 (March 11, 1983).

develop an entirely different distribution scheme that would increase the incentives of exchange carriers to improve efficiency.

6. Accordingly, IT IS ORDERED that the request of the National Exchange Carriers Association for waiver of the Part 69 distribution rules, as set forth above, is granted through June 1, 1985.

7. IT IS FURTHER ORDERED, that this Order Granting Waiver is effective upon adoption.

8. IT IS FURTHER ORDERED that this Order shall be published in the Federal Register.

FEDERAL COMMUNICATIONS COMMISSION
WILLIAM J. TRICARICO, *Secretary*

Character, Qualifications, Effect of Criminal Conviction
License, Assignment of AM
License, Assignment of, Issues vs. Assignor
Petition to Deny

> Commission granted assignment application and denied petition to deny. Criminal conviction of licensee's parent corporation not a bar to sale of station since it involved nonbroadcast misconduct unrelated to operation of station. No evidence of lack of candor or misrepresentation by licensee before the Commission.
> —*Mutual Radio of Chicago, Inc.*

FCC 84-203

BEFORE THE
FEDERAL COMMUNICATIONS COMMISSION
WASHINGTON, D.C. 20554

In re Application of Mutual Radio of Chicago, Inc., Assignor and Statewide Broadcasting of Chicago, Inc., Assignee	File No. BAL-831121EF
For Consent to Assignment of License of Standard Broadcast Station WCFL, Chicago, Illinois	

MEMORANDUM OPINION AND ORDER

Adopted: May 11, 1984; Released: May 11, 1984

BY THE COMMISSION:

1. The Commission has before it an application for the assignment of license of AM station WCFL from Mutual Radio of Chicago, Inc. ("Mutual") to Statewide Broadcasting of Chicago, Inc. ("Statewide") and two petitions to deny that application; one filed by Leonard H. Delano, Jr., ("Delano") of Hammond, Indiana, and the other filed jointly by Anthony

R. Martin-Trigona, New Haven Radio, Inc., and WHET, Inc. ("Martin-Trigona"). To establish standing, Delano asserts that Hammond, Indiana is a community within the WCFL service area and that he is a WCFL listener. Martin-Trigona states that he has been a WCFL listener since 1963. Thus, it appears that both petitioners have standing for the purposes of filing their respective petitions. *See Office of Communication of the United Church of Christ v. FCC*, 359 F.2d 994 (D.C. Cir. 1966).

2. The 30 day public comment period for this application commenced on November 29, 1983. During routine processing of the application and before any objections had been filed, certain questions were directed to Ian D. Volner, attorney of record for the assignor, by the Commission staff on December 13, 1983.[1] Subsequent to this inquiry but prior to Mutual's response, Delano filed a petition to deny on December 29, 1983 raising questions similar to the staff inquiry. Also on December 29, 1983, the National Black Media Coalition and its affiliate, the Chicago Black Media Coalition filed a request for an extension of time to file a petition to deny indicating that counsel for the applicants had no objection to such an extension. The National Black Media Coalition and the Chicago Black Media Coalition never filed a petition to deny, however, and thus are not part of this proceeding. On January 5, 1984, subsequent to the final day for the filing of petitions to deny, Martin-Trigona filed an objection to the application. On January 12, 1984, Delano filed an erratum and a supplement to his petition to deny. Mutual, after requesting an extension of time on January 10, 1984, filed an opposition to the petitions to deny on January 19, 1984.

3. On January 31, 1984, Delano filed a reply to Mutual's opposition to the petitions to deny. Martin-Trigona did not file a formal reply, but on

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[1] Mutual had noted in an exhibit filed with the application that its ultimate parent, Amway Corporation and a subsidiary, Amway of Canada, Ltd. pleaded guilty in the Ontario, Canada Supreme Court to criminal charges of defrauding the Canadian Government during the period of 1965 through 1980 of approximately $20 million dollars in duties by undervaluing home cleaning products imported into Canada. Mutual further noted that similar charges against four Amway principals were dropped and that a civil suit by the Canadian Government against Amway alleging untrue declarations based on false invoices is still pending. The questions asked by the Commission staff on December 13 were:

—What were the specific charges against Amway and its principals?

—What were the specifics of the agreements, if any, to drop the charges against the Amway principals?

—What effect, if any, does the admitted violation of Canadian law have on the character qualifications of Mutual as a Commission licensee?

Mutual filed its responses to these questions on January 19, 1984 and they were served on all parties to this proceeding.

January 27, 1984 addressed a letter to the Commission's staff demanding to know the details of the questions put to Mutual's counsel on December 13, 1983.

4. Thus, it appears that while the Delano petition was timely filed (on December 29, 1983), the Martin-Trigona petition filed on January 5, 1984 was untimely, as it was filed beyond the 30 day period for public comment. Rather than dismiss the Martin-Trigona petition, however, we will accept it as an informal objection pursuant to Section 73.3587 of our rules and consider the allegations to determine if any matters are raised which would cause us to question the qualifications of Mutual to assign the license of WCFL. Further, since the supplement to petition to deny filed by Delano on January 12, 1984 contains facts not disputed by the applicants, it will be accepted even though it is a pleading not specifically contemplated by our rules. Finally, Martin-Trigona's letter of January 27, while not styled as a reply, is accepted as such and will be acted upon in the course of this proceeding.

5. The proposed assignor, Mutual Radio of Chicago, Inc., is a wholly owned subsidiary of Mutual Broadcasting System, Inc., which in turn is a wholly owned subsidiary of Amway Communications Corporation which itself is wholly owned by the Amway Corporation ("Amway"). Amway and its subsidiary, Amway of Canada, Ltd., do not dispute that the corporations pleaded guilty to charges of violations of Canadian custom laws; and that Amway paid a fine of $20 million dollars and that Amway of Canada, Ltd. paid a fine of $5 million dollars.

6. Similar charges against four Amway principals were dropped as part of a comprehensive negotiated settlement with the Canadian government. The record clearly establishes, however, the approval and participation of these individuals in Amway's fraudulent misconduct and scheme to misrepresent. These Amway principals are Jay VanAndel, Chairman of the Board of Directors, Richard M. DeVos, President, William J. Halliday, Executive Vice President/Secretary, and C. Dale Discher, also a Vice President. VanAndel and DeVos, through trusts and foundations, are the sole and joint owners of Amway. Throughout the period of time from the commencement of the Canadian violations to the present, VanAndel, DeVos, and Halliday have served as the sole directors of Amway.

7. In Amway Communications Corporation, VanAndel, DeVos, and Halliday are the current Chairman of the Board, President, and Vice President, respectively, and the sole directors. In Mutual Broadcasting System, Inc., VanAndel and DeVos are Co-Chairmen of the Board, and Halliday is Secretary, and they are three of the four directors. And in the WCFL licensee, Mutual Radio of Chicago, Inc., VanAndel and DeVos are Co-Chairmen of the Board, and Halliday is Secretary, and they are three of the six directors. Nan VanAndel, the daughter of Jay VanAndel, and

Richard M. DeVos, Jr., the son of Richard M. DeVos, are two of the other three directors of the licensee. Jay VanAndel and Richard M. DeVos jointly vote 100% of the Amway Communications Corporation stock held by Amway; 100% of the Mutual Broadcasting System, Inc. stock held by Amway Communications Corporation; and 100% of the Mutual Radio of Chicago, Inc. stock held by Mutual Broadcasting System, Inc.

Allegations

8. Delano alleges that the adjudicated criminal activity of Amway and its Canadian subsidiary, spanning a 15 year period, requires a hearing to determine if Mutual remains qualified to be a Commission licensee. Delano additionally notes that a civil suit brought by the Canadian government against Amway alleging untrue declarations and false invoices is still pending. Delano further asserts that the misconduct of Amway is broadcast related since Amway regularly advertises its products over WCFL, and that WCFL serves significant portions of Canada.

9. Martin-Trigona alleges that the assignment of the WCFL license should be denied because he and his corporations are presently engaged in a breach of contract proceeding against Mutual Broadcasting System, Inc., Martin-Trigona claims that this lawsuit involves issues of racial discrimination. Further, Martin-Trigona maintains that he has a petition for reconsideration pending against the license renewal for station WHN(AM), New York, New York. WHN is licensed to Mutual Radio of New York, Inc., a subsidiary of Mutual Broadcasting System, Inc. Martin-Trigona also directs the Commission's attention to the Amway matter and suggests that WCFL's license should be revoked in light of the adjudicated violations of Canadian law.

10. Mutual responds to these allegations by not disputing the Canadian government's summary of the facts describing the Amway conviction that was submitted by Delano. Mutual denies that the misconduct was related to its broadcast activities, and states that none of the individuals involved in the day-to-day operations of WCFL participated in or had knowledge of the fraud. Further, Mutual notes that the Amway conduct did not violate the Communications Act or any FCC rules or regulations, did not involve deception of the broadcast public, and did not include misrepresentations or lack of candor to the Commission.

11. With regard to Martin-Trigona's separate claim, Mutual maintains that there are not any questions concerning racial discrimination raised in his lawsuit, and that in any event, Commission policy generally does not require a delay of assignment applications pending the resolution of private controversies in civil lawsuits. Further, Mutual claims that no outstanding petition for reconsideration of WHN's renewal is on file at the Commission, and that this fact was confirmed by a letter from the

Commission's staff in March, 1982. In any event, Mutual believes that Martin-Trigona's additional claims are cryptic and without merit.

Discussion

12. The petitioners raise three matters regarding the conduct of the parent corporation, Amway, its subsidiary, Amway of Canada, Ltd., and the licensee, Mutual, that must be considered in relation to the licensee's qualifications to apply for an assignment of the WCFL license.[2] The first matter is the undisputed violation of Canadian law by Amway and its subsidiary. The second matter is ancillary to the first, as it is undisputed that the violations were accomplished in part through fraud and misrepresentation by Amway's corporate principals. The third matter is the allegation that Amway's misconduct was broadcast related since its products were advertised on WCFL.

13. The undisputed violation of Canadian law by the licensee's parent corporation resulted in the largest criminal penalty ever levied by the Canadian government against a defendant, according to petitioner Delano. The Commission must decide what effect, if any, this admitted misconduct has upon Mutual's qualifications as a Commission licensee. Our inquiry into a licensee's past conduct has traditionally served as a predictor of future broadcast performance. *See FCC Policy on Character Qualifications*, 87 FCC 2d 836, 846 (1981). If it appears that a nexus exists between an applicant's past misconduct and a possible carry-over of the misconduct into the operation of the broadcast station resulting in future harm to the public interest, we have refused to grant the

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[2] Martin-Trigona raises two additional matters that can be disposed of summarily. He requests that we deny this assignment application because he is engaged in breach of contract litigation with Mutual concerning alleged racially discriminatory practices. Mutual points out in its opposition, however, that Martin-Trigona did not raise any questions concerning racial discrimination in his lawsuit. In any event, we note that the Commission has generally found that pending civil litigation against a station's seller does not require a deferral of action on an assignment application. *Sonderling Broadcasting Co.*, 46 RR 2d 889, 894-95 (1979). Further, should a finding of past discriminatory practices be made, remedial action is not necessarily limited to the former owner of a business. The new owner may also share the responsibility of redressing past problems. *EEOC v. MacMillan Bloedel Containers, Inc.*, 503 F.2d 1086 (6th Cir. 1974); *Brown v. Evening News Association*, 473 F.Supp. 1242 (E.D. Mich. 1979). Therefore, a grant of this assignment application and subsequent change in ownership would not preclude the court from fashioning an equitable remedy in the event that a determination of discriminatory practices is made against Mutual.

Martin-Trigona also asks that we defer action on the WCFL application because a petition for reconsideration is pending against the license renewal for station WHN, New York. There is no petition for reconsideration on file, though, and the Commission so advised Martin-Trigona by a copy of a letter from the Chief, Renewal Branch to Richard A. Helmick, dated March 23, 1982 (Reply reference: 8420-A).

application at hand. *Mansfield Journal Co. v. FCC*, 180 F.2d 28, 34 (D.C. Cir. 1950). *See Mester v. United States*, 70 F. Supp. 118, 122 (E.D.N.Y.), *aff'd per curiam*, 332 U.S. 749 (1947); *Violation by Applicants of Laws of U.S.*, 42 FCC 2d 399, 401-02 (1951). Conversely, where past misconduct does not portend future broadcast abuse of the public trust by a licensee, we have acted favorably on pending applications. *See Cowles Broadcasting, Inc.*, 86 FCC 2d 993, 997-1002 (1981), *aff'd on other grounds sub nom. Central Florida Enterprises, Inc. v. FCC*, 683 F.2d 503 (D.C. Cir. 1982), *cert. denied*, 103 S.Ct. 1774 (1983). Against this framework, it is apparent that the Amway misconduct, while an admitted criminal violation, has no nexus with any past practices of Mutual that are likely to result in any possible future violations of the Communications Act, Commission rules or policies. The misconduct at issue is a violation of a foreign nation's criminal law with no evidence that it has had any adverse effect on the broadcast station operation or the public interest. Further, there is nothing to suggest that the admitted nonbroadcast misconduct would be likely to result in broadcast misconduct by Mutual in the future. Therefore, we find that the admitted violations of Canadian law by Amway has no effect upon the qualifications of Mutual to continue as a Commission licensee and to apply for the assignment of the license of WCFL.

14. The petitioners further ask the Commission to consider what effect, if any, the conduct of Amway principals in the scheme to misrepresent product values and defraud the Canadian government has on Mutual's qualifications. The Commission has consistently viewed truthfulness as one of the key elements of character necessary to find an applicant fit to operate a broadcast station in the public interest. *See FCC v. WOKO*, 329 U.S. 223, 227 (1946). Further, adjudicated misrepresentation may very well cast doubts upon that applicant's future veracity as a Commission licensee. A review of the facts and the circumstances surrounding Amway's misconduct in Canada convinces us, however, that neither the misrepresentation nor fraudulent conduct by Amway principals has any bearing upon Mutual's qualifications as a Commission licensee.

15. Our concern with applicant and licensee misrepresentation revolves around the integrity of the licensing process. The Commission depends upon the honesty and candor of its applicants and licensees in order to carry out its responsibility of licensing broadcast stations in the public interest. Therefore, if the past conduct of Mutual or its parent, Amway, casts any doubt on Mutual's future candor with the Commission, Mutual's qualifications as a licensee would be in doubt. This case, however, does not present a situation in which Commission processes were or might have been subverted, owing to either misrepresentation,

lack of candor, or omissions on the part of the applicant. *See e.g., RKO General, Inc. v. FCC,* 670 F.2d 215 (D.C. Cir. 1981).[3] Since the Commission has been fully advised of Amway's Canadian legal problems with each application Mutual has tendered, we have no reason to doubt Mutual's candor.[4] We fail to find where any misrepresentation Amway and its principals made to the Canadian government had any bearing on, or relation to, Mutual's conduct before this Commission. Therefore, this matter does not warrant further review.

16. Finally, Delano suggests that Amway's misconduct was broadcast related by maintaining that the corporation was aided in its misrepresentation and fraud vis-a-vis the Canadian government by the broadcast of Amway product advertisements on WCFL, since the station reaches Canadian listeners. The petitioners are unable to show, however, that Amway advertisements on WCFL aided or abetted the fraud perpetrated in Canada. The extensive documentation of the Canadian offenses submitted as a supplement to the petition to deny by Delano does not mention WCFL or its licensee, Mutual, nor does it suggest that any Amway advertisements run on WCFL aided Amway in its violation of Canadian law. Thus, we find that there is no basis to the charge that Amway's misconduct was broadcast related.

17. The findings above are consistent with our current practice in this area. First, we must recognize that the complained of misconduct concerned violations of Canadian nonbroadcast laws. Second, the Commission has found even egregious domestic nonbroadcast misconduct not to disqualify applicants seeking to sell or buy broadcast stations. *See, e.g., Starr Broadcasting Group, Inc.*, 72 FCC 2d 233 (1979); *Katy Communi-*

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[3] The *RKO* case is cited by both petitioners as precedent which requires that the WCFL assignment application be designated for hearing. The appellate court in the *RKO* case, however, specifically stated that the disqualification of the licensee there was solely a repercussion of that licensee's lack of candor to the Commission. 670 F.2d at 218. The appellate court never had to consider whether the Commission's designations of the RKO license renewal applications were appropriate, as mutually-exclusive applicants challenged those respective license renewal applications and comparative hearings were required by statute in each of those instances. Further, *RKO* cannot be read to stand for the proposition that nonbroadcast misconduct is disqualifying since the appellate court explicitly rejected all grounds in the Commission's decision for the licensee's disqualification except for lack of candor.

[4] Letter from Richard A. Helmick to FCC Secretary, File No. BR810202 (December 2, 1982) (advising Commission of charges filed against Amway for inclusion in the WCFL license renewal file). Amendment to MBS Application for Modification of Transmit-Receive Earth Station License, File No. 127-DSE-M6083 (December 7, 1982) (notification of legal charges filed against Amway and four principals "reported to the Commission for informational purposes in the spirit of full disclosure and candor"); Application of Mutual Radio of Chicago, Inc. and Statewide Broadcasting of Chicago, Inc. for Consent to Assignment of the license of WCFL, File No. BAL-831121EF, Exhibit 4 (November 17, 1983) (reporting Canadian guilty plea and payment of fine by Amway and Amway of Canada, Ltd.).

cations, Inc., 87 FCC 2d 764 (1981). Likewise, nonbroadcast misconduct has not, on its own, disqualified applicants for renewal of broadcast licenses. *See Cox Broadcasting Co.*, 78 FCC 2d 684, 721-761 (1980), *vacated on other grounds sub nom. Miami Valley Broadcasting Corp.*, 48 RR 2d 1065 (1980); *Westinghouse Broadcasting Co., Inc.*, 75 FCC 2d 736 (1980); *General Electric Co.*, 45 FCC 1592 (1964); *Westinghouse Stations License Renewal*, 44 FCC 2778 (1962). Further, while foreign misconduct has often been present and considered in relation to the qualifications of an applicant, we are unaware of any case in which foreign misconduct alone was found to be disqualifying.

18. Finally, as noted above, we believe that the best predictor of future service is the broadcaster's past conduct as a Commission licensee. *FCC Policy on Character Qualifications*, 87 FCC 2d 836, 846 (1981). Responsible behavior in broadcasting has outweighed a broad array of offenses in nonbroadcast fields. *See, e.g., General Electric Co.*, 45 FCC 1592, 1597-98 (1964); *Westinghouse Stations License Renewal*, 44 FCC 2778, 2780-81 (1962). The Mutual Broadcasting System Inc. points to its long and distinguished history of service to the American public. Of particular significance with regard to the WCFL assignment application, Mutual Radio of Chicago, Inc. believes, are the fourteen broadcast journalism awards the station has received in the past year. Thus, Mutual's past responsible broadcast conduct further confirms the improbability that the nonbroadcast misconduct petitioners complain of will have any effect on future broadcast performance.

19. Delano filed on April 26, 1984 a supplemental petition to deny alleging that the proposed assignee, Statewide, has prematurely assumed control of WCFL in violation of Section 310(d) of the Communications Act of 1934, as amended. Delano has submitted evidence of: Statewide's use of the WCFL service mark; Statewide's printed advertisements announcing future programming on the "All New Christian WCFL 1000*" (with the notation "*pending FCC approval"); memoranda between Mutual principals regarding the receipt, refusal to air and storage of commercial religious programs apparently contracted for by Statewide; and contracts for future WCFL programs with notations on the face of the agreements (with one exception) and in the preprinted conditions of the agreements that the performance of the contract is contingent upon FCC approval of the application for assignment of license. Delano further alleges that Statewide's president has already established an office at WCFL.

20. This late filed pleading is not contemplated by our rules. *See* Section 73.3584(b). Accordingly, it is rejected as an unauthorized pleading. In any event, when considered as an informal objection pursuant to Section 73.3587, the allegations do not appear to raise any substantial and material questions of fact that would warrant an evidentiary hearing. The

Commission looks past mere legal ownership of a broadcast facility and considers the totality of the circumstances to ascertain where actual control of a station resides. *See George E. Cameron Jr. Communications,* 91 FCC 2d 870, 887 (1982); *Stereo Broadcasters, Inc.*, 55 FCC 2d 819, 821 (1975). Generally, the principal indicia of control examined to determine whether an unauthorized transfer of control has occurred are control of policies regarding: (a) the finances of the station; (b) personnel matters; and (c) programming. *S.W. Texas Public Broadcasting Council,* 85 FCC 2d 713, 715 (1981). The evidence submitted by Delano, rather than suggesting that a premature transfer of control has taken place, instead demonstrates that Mutual has continued to exercise complete control over WCFL's policies concerning finances, programming and personnel through its general manager, a Mutual employee. Therefore, the allegations contained in this pleading do not raise any question regarding the qualifications of either the proposed assignor or proposed assignee as Commission licensees.

Conclusion

21. In view of the foregoing, we find that Leonard H. Delano, Jr., and Anthony R. Martin-Trigona, New Haven Radio, Inc., and WHET, Inc., have failed to raise any substantial and material questions of fact that would warrant an evidentiary hearing.

22. Accordingly, IT IS ORDERED, That the petition to deny filed by Leonard H. Delano, Jr., IS DENIED.

23. IT IS FURTHER ORDERED, That the informal objection filed jointly by Anthony R. Martin-Trigona, New Haven Radio, Inc., and WHET, Inc., IS DENIED.

24. IT IS FURTHER ORDERED, That the supplemental petition to deny filed by Leonard H. Delano, Jr., IS DISMISSED, and when considered as an informal objection, IS DENIED.

25. IT IS FURTHER ORDERED, That upon a determination that the public interest will be served thereby, the application to assign the license of station WCFL, Chicago, Illinois from Mutual Radio of Chicago, Inc., to Statewide Broadcasting of Chicago, Inc., IS GRANTED.

FEDERAL COMMUNICATIONS COMMISSION

WILLIAM J. TRICARICO, *Secretary*

Construction Permit, Modification of
Satellite Earth Station, Construction

Applications for modification of CP to establish an interim direct b/c satellite system and for authority to construct and operate a related earth station granted. Grant provides service to the public in the most efficient, expeditious manner possible.
—*Satellite TV Corp.*

FCC 84-208

BEFORE THE
FEDERAL COMMUNICATIONS COMMISSION
WASHINGTON, D.C. 20554

In re Applications of	
Satellite Television Corporation	
For Modification of Construction Permit to Establish an Interim Direct Broadcast Satellite System;	File No. DBS-81-01-MP
For Authority to Construct and Operate an Earth Station.	File No. DBS-81-01-ESP/L 83

MEMORANDUM OPINION AND ORDER

Adopted: May 10, 1984; Released: May 16, 1984

BY THE COMMISSION: COMMISSIONER RIVERA ISSUING A SEPARATE STATEMENT.

1. The Commission has before it for consideration the "Application for Minor Modification of Construction Permit and for Assignment of Frequencies and Orbital Positions" filed by Satellite Television Corporation ("STC") on January 5, 1984; the "Consolidated Petition to Deny and Comments" filed by Direct Broadcast Satellite Corporation ("DBSC"); and opposition and reply pleadings filed by both parties.[1] Also before the Commission is STC's related application for authority to construct and operate an uplink earth station. In its petition, DBSC objects to the grant of STC's "Minor Modification" application on the grounds that it

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[1] On March 8, 1984, STC requested an extension of time for filing its opposition and on March 21, 1984, DBSC requested an extension of time for filing its reply. Those requests are granted and those pleadings are considered herein.

constitutes a major change in STC's original application for Interim Direct Broadcast Satellite Service facilities (DBS 81-01). It also contends that a grant of the modification application would deny DBSC's right to a hearing for any facilities granted to STC.[2]

2. STC filed its original application for a construction permit for an Interim Direct Broadcast Satellite System on December 17, 1980. In response to that application and the Commission's own *Notice of Inquiry,*[3] the Commission issued a *Notice of Proposed Policy Statement and Rule Making* in General Docket No. 80-603, setting forth proposed policies and conditions to govern the authorization of Interim DBS services. 86 FCC 2d 719 (1981). At the same time, the Commission accepted STC's application for filing and established a cut-off period for competing applications, during which time additional applications were filed, including DBSC's. *Id.*[4] DBS service was subsequently authorized and rules established in *Report and Order* in Docket No. 80-603 ("DBS Report and Order"), 90 FCC 2d 676 (1982). Shortly thereafter, STC's and the other applicants' construction permit applications were granted, conditioned, in part, on the outcome of the 1983 Region 2 Administrative Radio Conference ("RARC-83") and each applicant's conformance with the Final Acts of RARC-83, as well as each applicant's "due diligence" in the construction of its system. *In re STC,* 91 FCC 2d 953 (1982); *In re CBS, Inc.*, 92 FCC 2d 64 (1982). After the conclusion of RARC-83 and the issuance of its Final Acts, the Commission set a time period for applicants to modify their previously granted permits to specify performance within the parameters of the Final Acts and to request specific channel and orbital assignments from among those assigned to the United States by RARC-83. *In re Processing Procedures Regarding DBS Service* ("DBS Processing Procedures"), FCC 83-451, released October 7, 1983. It is STC's modification application in response to that Order which DBSC opposes here.

3. STC's original application for DBS service was approved to provide nationwide service from four satellites at four separate orbital positions, transmitting three channels each, with each satellite serving roughly one time zone, or one quarter of the Continental United States (quarter-CONUS). *In re STC, supra.* In its modification, STC proposes that advances in technology will enable each satellite, with the same three

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[2] DBSC's Petition also objects to the minor modification applications filed by CBS, Inc. (DBS 81-02-MP) and Dominion Video Satellite, Inc. (formerly Video Satellite Systems, Inc.; DBS 81-08-MP). Those applications and pleadings will be considered separately.

[3] 45 Fed. Reg. 72719 (November 3, 1980).

[4] Thirteen additional applications were filed, of which eight were accepted. *In re Advance, Inc.*, 88 FCC 2d 100 (1981); *aff'd, In re Advance, Inc.*, 89 FCC 2d 177 (1982); *appeal dismissed on petitioner's motion, National Christian Network, Inc. v. F.C.C.*, No 82-1345 (D.C. Cir., November 22, 1982).

channels, to serve twice as much ground area (two time zones each, or half-CONUS). Two of the satellites will be co-located at one orbital position while the other two will be combined into one six-channel satellite at a separate orbital position. By this configuration, STC proposes to provide twice as much service to the public (twice as many channels) as it had originally proposed, without increasing its use of orbit/spectrum.[5] Additionally, this configuration will bring service to the Central and Mountain time zones at the same time as Eastern and Western service, respectively, rather than awaiting the eventual construction and launch of subsequent satellites.

4. DBSC points out the criteria set out in *DBS Processing Procedures* for judging the acceptability of these modifications: "The Commission will construe the applications for modifications of construction permits, insofar as they include modifications of technical parameters, service areas, etc., as minor modifications. However, . . . any request for modification involving additional use of the orbit-spectrum resource may constitute a significant change warranting the filing of a separate application for a major change in facilities."[6] *Id.* at 5. DBSC contends that because STC proposes to provide twice as much service as anticipated when its application was granted in *In re STC, supra,* it has proposed a major change and its application should be rejected and deferred for consideration with one of the later rounds of applications. It is clear, however, that STC has merely changed (expanded) the service area of each of its satellites and will use precisely the same amount of orbit/spectrum as previously granted. The orbit/spectrum needs of the remaining applicants are not affected by this change.[7] Thus, STC's proposed modifications will not be considered a major amendment as urged by DBSC.

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[5] Instead of using 3 channels at each of 4 locations (12 channels out of all those available), STC would now use 6 channels at each of 2 locations (12 channels out of all those available). Employing larger service areas from this configuration, instead of providing 3 channels of service nationwide, STC would now provide 6 channels of service nationwide.

[6] DBSC incorrectly claims that the Commission's Order stated that a request for additional orbit-spectrum "would," rather than "may," constitute a major change. DBSC petition at 2.

[7] We note that STC, as the pioneer in developing DBS service to date, formulated its application long before the remaining applicants were required to file, and thus may not have had the advantage of the same level of technological advancement as did the subsequent applicants which proposed half-CONUS service. When all applicants filed their modified proposals at the same time in response to *DBS Processing Procedures, supra,* STC's proposal was similar to that of the other applicants in terms of service area to be served from each satellite, based on the technology available to all parties. In fact, STC was one of the parties contributing efforts to the adoption of half-CONUS service at RARC-83.

5. DBSC further argues that STC's proposal represents an inefficient use of the orbit/spectrum, contending that STC should have proposed to accomplish its original service plan with fewer satellites and/or channels to achieve the savings in resource made possible by the technological advances it intends to employ. We cannot agree. Although STC certainly could have used technological advances to reduce by half the amount of orbit/spectrum it would have required to provide its originally anticipated level of service, it is equally "efficient" to use the same amount of orbit/spectrum as originally proposed to provide twice as much service, and the benefit of that efficiency is exploited to a greater extent.

6. DBSC also contends that a grant to STC of the particular orbit and channels it requests will reduce DBSC's chances of getting the channels which it requested at the same orbital position (even though it requested different channels at that position), because more channels have been requested at that orbit than are available. It claims that it is therefore entitled to a comparative hearing for channels at that position under *Ashbacker Radio Corporation v. F.C.C.*, 326 U.S. 327 (1945). *Ashbacker* rights, however, inure only where there are two or more mutually exclusive applications, and STC's application is not mutually exclusive with DBSC's in any respect. The Commission has repeatedly stated that for DBS service "All frequencies and orbital positions . . . shall generally be considered to be of equal value, and conflicting requests for frequencies and orbital positions will not generally give rise to comparative hearing rights as long as unassigned frequencies and orbital slots remain." *DBS Report and Order, supra* at 719; *accord, DBS Processing Procedures, supra* at para. 6. This provision is specifically included in Section 100.13(b) of the Commission's rules. 47 C.F.R. § 100.13(b). As the available orbit/spectrum is sufficient to satisfy all of the first round applicants' proposals on this basis, a grant to STC in no way prejudices DBSC's ability to receive authorization to operate essentially as proposed.

7. DBSC attempts to bolster its argument by insisting that three of the eight orbital slots allocated to the United States for DBS service are "unsuitable" as a matter of scientific fact, but it is a simple arithmetic matter that the remaining channels would still provide more than enough capacity for all of the first round applicants' proposed facilities.[8] DBSC's remaining contention that the particular orbital position[9] chosen by STC (101°W) has the most favorable elevation angle fails to consider the extent

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[8] The combined proposals of the first round applicants require 126 channels overall. If all the channels are utilized, there are 256 channels available nationally, and 160 channels from those positions which DBSC has not labeled "unsuitable."

[9] STC has requested channels at 101°W and 148°W, and DBSC has made the same argument regarding both requests. For reasons stated below, we are only considering STC's request for assignment of channels at 101°W at this time.

to which any such advantage may be offset by other technical considerations, such as the eclipse time that position experiences.[10] If DBSC does consider some locations better suited to its purposes for its own reasons, it has the same opportunity as every other applicant to secure any particular channels and positions, as long as they remain available, by demonstrating due diligence.[11]

8. Accordingly, we will grant STC's request for Channels 6, 8, 10, 12, 14 and 16 at 101°W.[12] Its request for the same channels at 148°W cannot be granted at this time. As stated in *DBS Report and Order, supra*, and repeated in *DBS Processing Order, supra*, the accommodation of an applicant's specific assignment preferences will depend upon their avail-

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[10] The elevation angles (antenna pointing angles) from major cities in Eastern half-CONUS are generally higher from 101°W than from 110°W (the next "suitable" location according to DBSC), but only by a few degrees. The elevation angles to both positions are considerably higher than the 20° angle prescribed by RARC-83 as generally satisfactory, exceeding 50° from many locations to either orbital position. Eclipse time, that time during which the satellite is shielded from the sun and therefore is without power (unless supplied by batteries) during several days each year, occurs earlier in the evening at 101°W than at two of the other four positions designated for service to the Eastern half-CONUS.

[11] DBSC submits the affidavit of Wilbur L. Pritchard which states that 101°W offers the best elevation angle for eastern service. However, Mr. Pritchard also stated at the Satellite Communications Users Conference of 1983, according to a transcript submitted by STC, that the 20° minimum elevation angle established by RARC-83 was a good minimum, that there is a genuine trade-off between eclipse protection and elevation angle at the different positions, and that there are "plenty of good channels and plenty of good orbital positions." Furthermore, DBSC states in its modification application that there are only "small differences in the desirability of individual orbital locations," and that it is prepared to accept a different orbital position from that requested if necessary to implement one aspect of its proposal. DBSC modification application at p. 8. On April 2, 1984, DBSC filed a statement in which it claims to have satisfied the due diligence requirement. The merits of DBSC's due diligence claim will be considered in the context of its application, as will its claim that it is entitled to more channels than currently proposed in the event that STC's instant application is granted.

[12] The request for these specific channels and location appears to represent a "reasonable preference," particularly in light of STC's desire to effect co-location with a proposed Satellite Business Systems satellite from which it intends to provide interim direct broadcast satellite service. (Request of Satellite Business Systems for Temporary Modification of the Orbital Assignment for the Fourth SBS Ku-band Satellite, File No. 170-DSS-MP/ML-84.) This co-location would prevent the necessity of repointing home antennas and STC's uplink facilities when STC switches from its SBS service to its own satellite, if Satellite Business Systems' request is granted. (This request has been opposed by other parties and is currently under consideration by the Commission. Our action herein in no way reflects on the merits of those issues or prejudges the resolution of that dispute.) STC also contends that the specified channels will provide the least potential for interference with existing users in the spectrum allocated for DBS use. This consideration is particularly important for STC as it currently appears that STC's progress will make it the first DBS operator in service. The fact that STC's first phase satellites have been under construction for some time is undisputed.

ability at the time the applicant demonstrates due diligence, and specific orbital positions and channels will not be granted until the condition is met. Such due diligence anticipates that permittees shall "... begin construction or complete contracting for construction" of the satellite station being proposed. *Id.*; 47 C.F.R. § 100.19(b). STC has not yet made this showing with regard to its western service satellite.

9. At the same time, we do recognize that STC, in actually building satellites to provide service for its proposed first phase of operation, is proceeding with its plan in a definite manner. In recognition of the substantial investment involved and the desirability of having a national system, the Commission has already specifically stated, in granting STC's original application, that it would reserve "sufficient spectrum and orbital resources for the implementation of [STC's] national system, subject to the Final Acts of RARC-83 and the competing needs of the first-round applicants." *In re STC, supra* at n. 104. It also stated that this approach was "in keeping with our determination .. to manage the development of the various systems through the grant of individual construction permits." *Id.* The clear implication of these statements is that spectrum and orbital resource will be reserved, but particular assignments will be made only as progress begins on the construction of the actual facilities. In light of these statements and the consideration they represent, the assignment of specific facilities in advance of the initiation of construction or the completion of contracting for construction of those facilities would be premature. This result is particularly necessary here. In granting STC a construction permit for its first phase of service, the Commission made the express reservation that "this approval . . . does not include Commission authorization for financing of subsequent phases of the STC national system. . .. All future applications for construction permits must include full financial information including the expected impact on Comsat's INTELSAT/INMARSAT responsibilities." *Id.* Accordingly, we will reserve six channels for the implementation of STC's western service from among those available at the orbital locations specified to serve that area. As we have previously stated, this reservation presumes reasonably prompt action by STC in light of its extension of substantial resources in initiating its eastern service.[13]

10. STC's modification application and earth station application conform in all respects with the specifications adopted by RARC-83, save one. STC proposes to operate its uplink on the opposite polarization as its downlink service, whereas the Final Acts of RARC-83 call for same sense

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[13] This continues the reservation made in granting DBS applications thus far. *In re STC, supra* at n. 7; *In re CBS, Inc., supra* at n. 8. As stated elsewhere, the duration of this reservation may also be influenced by the existence of immediate demand for all of the available resources by other applicants. See fn. 17, *infra.*

polarization. This opposite polarization effects significant technical and related financial economies.[14] We note that the United States took a reservation to this specific aspect of the Final Acts. Furthermore, according to the Commission's analysis, which employed the same computer-model as that used at RARC-83, this use of opposite polarization for uplink facilities at 101°W should engender no constraints on the Plan adopted at RARC-83. This authorization will require all other DBS operations assigned to 101°W to also use opposite polarization for their uplink facilities. However, no objections to this proposal have been received, and in view of the economies it employs, it should not adversely affect any other operator. In any event, other orbital positions are currently available for those that wish to operate uplinks with same sense polarization. As this proposal is entirely in keeping with the currently experimental nature of DBS services, and there appears no hindrance to its authorization, it will be approved.

11. STC has also submitted a request for assignment of frequencies and polarizations for tracking, telemetry and command ("TT&C") for its satellites. No specific provisions were made for TT&C functions by RARC-83, except to make the guardbands reserved on either end of the 12.2 – 12.7 and 17.3 – 17.8 GHz DBS allocation available for that purpose. No guidelines have been specified by the Commission. STC's proposal and performance projections are based on current data from the International Radio Consultative Committee. STC proposes to use the DBS guardbands as anticipated by RARC-83. STC requests channel spacing of 1 MHz for telemetry and of 2 MHz for command, and will use two telemetry channels for each satellite and one command channel for both co-located satellites. STC demonstrates that this operation will provide adequate performance without objectionable interference, and will leave sufficient spectrum for TT&C for eight more satellites at the same nominal orbital position using similar TT&C systems. Accordingly, STC's proposal for TT&C of the satellites authorized for construction and launch herein will also be approved. This action does not bind subsequent applicants in their own provision for TT&C functions, except that they must be compatible from an interference standpoint.[15]

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[14] Notably, each of the first round applicants which specifically addressed the issue of uplink polarization expressed the preference for opposite polarization on their uplink. Also, orthogonal (opposite linear) uplink polarization is employed universally in FSS systems.

[15] STC suggests that the Commission adopt its proposal as a standard, requiring all subsequent applicants to use the same spectrum and channel widths. We see no necessity to so constrain other operators at this time. As long as they use available spectrum, are not wasteful of spectrum, and will leave enough spectrum to accommodate anticipated additional users, they will be free to propose TT&C operations as best suits their needs.

12. As a final matter, we note that the grant of STC's construction permit was conditioned on any action the Commission might take upon review of an Initial Decision which found that Comsat (STC's parent company) had violated Sections 201(b) and 202(a) of the Communications Act of 1934, as amended, and Section 201(c)(2) of the Communications Satellite Act. 47 U.S.C. §§ 201(b), 202(a), 721(c)(2). *In re STC, supra* at 994. The Commission has since vacated that Initial Decision and the findings regarding Comsat's actions. *In re COMSAT*, FCC 84-29, released February 2, 1984, at paras. 47, 49. Thus, that condition has been rendered moot.

13. Accordingly, IT IS ORDERED, That the "Consolidated Petition to Deny and Comments" filed by Direct Broadcast Satellite Corporation IS DENIED, as it applies to Satellite Television Corporation's modification application.[16]

14. IT IS FURTHER ORDERED, That the motions for extension of time filed by Satellite Television Corporation and Direct Broadcast Satellite Corporation ARE GRANTED.

15. IT IS FURTHER ORDERED, That the application of Satellite Television Corporation, File No. 81-01-MP, for modification of construction permit for an Interim Direct Broadcast Satellite System IS GRANTED, and Satellite Television Corporation IS AUTHORIZED to construct and launch two satellites to provide DBS service on channels 6, 8, 10, 12, 14, and 16 from an orbital position of 101°W, in accordance with the specifications set out in Appendix A and otherwise in accordance with the terms, conditions, and technical specifications set forth in its application.[17]

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[16] In its reply pleading, DBSC attempts to raise for the first time issues addressed by United States Satellite Broadcasting Company, Inc., to certain aspects of a proposed joint venture between STC and CBS, Inc., in a petition to deny CBS's DBS application. Any aspects of the anticompetitive effects of granting adjacent "middle" channels in an orbital position to STC and CBS alleged therein do not appear to be at issue in this grant to STC. Those arguments regarding these parties' intentions to market non-universal receive antennas are not critical to grant of STC's construction and launch authorization.

[17] Formal instruments of authorization will be issued at a later date. This grant includes authorization for STC's proposal for tracking, telemetry, and command, as well as the reservation for STC of six channels from those available at the orbital positions designated for western service for the implementation of its national system as described in the instant application. The Commission continues to reserve the right to assign unused spectrum to other applicants where it finds that the systems for which the spectrum are reserved are not being implemented in a timely fashion. *See, In re STC, supra* at n. 7; *In re CBS, Inc., supra* at n. 8. In the event that demand for reserved but unused spectrum becomes imminent, the Commission may consider terminating any reservation after providing a specified reasonable time period for the permittee to secure its orbital position and channels by a demonstration of due diligence.

16. IT IS FURTHER ORDERED, That the application of Satellite Television Corporation, File No. DBS-81-01-ESP/L 83, for authority to construct and operate an earth station at Las Vegas, Nevada IS GRANTED in accordance with the specifications set out in Appendix B and otherwise in accordance with the terms, conditions, and technical specifications set forth in its application.

17. IT IS FURTHER ORDERED, That the Mass Media Bureau shall send by Certified Mail, Return Receipt Requested, a copy of this *Memorandum Opinion and Order* to each of the parties to this proceeding.

FEDERAL COMMUNICATIONS COMMISSION
WILLIAM J. TRICARICO, *Secretary*

RADIO STATION CONSTRUCTION PERMIT AND LAUNCH AUTHORITY

Direct Broadcast Satellite
(Nature of Service)

	DBS-81-01
Space Station	DBS-81-01-MP
(Class of Station)	(File Number)

Permittee: Satellite Television Corporation

Subject to the provisions of the Communications Act of 1934, as amended, subsequent acts, and treaties, and all present and future rules and regulations made by this Commission, and further subject to the conditions and requirements set forth in this radio station authorization, authority is hereby granted to construct and launch this radio station in accordance with the specifications and parameters set forth below.

File Numbers: DBS-81-01
DBS-81-01-MP

Particulars of Operation:

Nominal Orbital Position:	101° West Longitude
Exact Orbital Position:	100.8° West Longitude

Tracking, Telemetry & Command Assignments:

Frequency (GHz)			*Assigned*	*Maximum*
Transmit	*Receive*	*Polarization**	*Bandwidth (kHz)*	*EIRP (dBW)*
12.2045	–	LHCP	1000	25
12.2055	–	LHCP	1000	25
12.2065	–	LHCP	1000	25
12.2075	–	LHCP	1000	25
–	17.3060	RHCP	2000	–

Transponder Assignments:

Space Station	*Transponder Designation*	*Frequency(GHz) & Polarization** *Transmit*	*Receive*	*Assigned Bandwidth (kHz)*	*Power to Antenna (dBW)*	*Antenna Beams*
STC 1	6	12.29690 (LHCP)	17.39690 (RHCP)	24000	21.8	1,2,3
	10	12.35522 (LHCP)	17.45522 (RHCP)	24000	21.8	1,2,3
	14	12.41354 (LHCP)	17.51354 (RHCP)	24000	21.8	1,2,3
STC 2	8	12.32606 (LHCP)	17.42606 (RHCP)	24000	21.8	1,2,3
	12	12.38438 (LHCP)	17.48438 (RHCP)	24000	21.8	1,2,3
	16	12.44270 (LHCP)	17.54270 (RHCP)	24000	21.8	1,2,3

***Polarization**
RHCP – Direct, Right Hand Circular Polarization
LHCP – Indirect, Left Hand Circular Polarization

File Numbers: DBS-81-01
DBS-81-01-MP

Antenna Beams:

1. Nominal Coverage Area: Eastern Half Continental U.S. as proposed.

   Maximum Antenna Gain:** 35.2 dBi

   Pointing Accuracy: ±0.1° (Any Direction)

2. Nominal Coverage Area: Eastern Quarter Continental U.S. corresponding approximately to Eastern Time Zone as proposed.

   Maximum Antenna Gain:** 38.2 dBi

   Pointing Accuracy: ±0.1° (Any Direction)

3. Nominal Coverage Area: East Central Quarter Continental U.S corresponding approximately to Central Time Zone as proposed.

   Maximum Antenna Gain:** 38.2 dBi

   Pointing Accuracy: ±0.1° (Any Direction)

****Maximum Antenna Gain** is the gain of the satellite antenna in the direction of maximum radiation referred to an isotropic radiator. The permittee shall submit and maintain the most current and accurate gain contours on file for specific orbital location authorized with the Commission as they become available.

File Numbers: DBS-81-01
DBS-81-01-MP

This authorization includes the reservation of six channels from those orbital positions designated for western service for the implementation of a national system, subject to the competing needs of other applicants. The grant of a specific orbital position and specific channels for this phase of operation is subject to the submission of financial information, as required by *In re STC*, 91 FCC 2d 953, at n. 104 and a showing of due diligence in construction (47 C.F.R. § 100.19(b)).

This authorization is subject to the policies, terms and conditions set forth in *Report and Order* in Docket No. 80-603, 90 FCC 2d 676 (1982); *In re STC*, 91 FCC 2d 953 (1982); *In re Processing Procedures Regarding DBS Service*, FCC 83-451, released October 7, 1983; *In re STC*, FCC 84-________, released ____________, 1984.

This authorization includes launch authority. The permittee shall submit, on a semi-annual basis, the status of satellite construction and anticipated launch dates, including any major problems or delays encountered. Provided, however, that after construction has been completed and not later than ten (10) days before anticipated launch date, the permittee shall submit to the Commission in writing that all the terms, conditions and obligations set forth in the application and in this authorization have been fully met and that appropriate arrangements for the launch of the satellites have been completed.

Permittee shall notify the Commission and appropriate satellite operator(s) whose in-orbit satellite(s) may be affected during the transfer orbit and final on-station positioning of this satellite and shall coordinate such operations to the full extent necessary.

Upon successful launch and positioning of such satellites, the permittee shall file an application for license to cover the facilities authorized herein within thirty (30) days and shall certify to the Commission that the in-orbit operations of the satellites fully and in all respects conform to the specifications set forth in the application and in this authorization, and that such satellites are fully capable of providing the services proposed. A description of the utilization made or anticipated to be made on each transponder on each of the in-orbit satellites should also be included.

Subject to final action on the application for license to cover the facilities authorized herein, or any other action the Commission may consider appropriate subsequent to launch of the satellites: (a) The permittee shall submit the identification of any transponders not available for service or otherwise not performing to specifications, the cause of such difficulties, and the date any such transponder was taken out of service or the malfunction identified; and a listing of any non-scheduled outages or serious service degradations lasting for more than thirty minutes, and the cause(s) of such difficulties; (b) The hours of operation are unlimited.

This authorization is issued on the permittee's representations that the statements contained in the application(s) for these facilities are true and that the undertakings described in such application(s), so far as they are consistent with this authorization, will be carried out in good faith.

The conditions and provisions set forth herein do not necessarily embody the full text of the formal authorization and do not preclude the Commission from requiring compliance with additional conditions and provisions as may be deemed appropriate.

RADIO STATION CONSTRUCTION PERMIT AND LICENSE

Direct Broadcast Satellite File No. DBS-81-01-ESP/L-83
Fixed Earth Station

Location of Station: Las Vegas, Nevada

Latitude: 36° 16' 56" N.
Longitude: 115° 15' 57" W.

Particulars of Operation:

Frequency (GHz)			*Assigned*	*Nominal On-Axis*
Transmit	*Receive*	*Polarization**	*Bandwidth (kHz)*	*EIRP (dBW)*
17.30600	–	RHCP	2000	87
17.39690	–	RHCP	24000	83
17.45522	–	RHCP	24000	83
17.51354	–	RHCP	24000	83
17.42606	–	RHCP	24000	83
17.48438	–	RHCP	24000	83
17.54270	–	RHCP	24000	83
–	12.2 to 12.7	RHCP/LHCP	–	–

***Polarization**
RHCP–Direct, Right Hand Circular Polarization
LHCP–Indirect, Left Hand Circular Polarization

Azimuths of Operation with Respect to True North:	100.3° to 259.7° T
Minimum Main Beam Elevation Angle:	5.0°
Range of Satellite Longitudes:	42.3° W. to 188.2° W.
Receiving System G/T:	37.0 dB/K at 12.2 GHz when antenna is at 10° elevation

File No. DBS-81-01-ESP/L-83

Points of Communications:

The following space stations located in geostation ary satellite orbit:

STC 1 at 100.8° West Longitude

STC 2 at 100.8° West Longitude

Transmitting Equipment:

Type of Transmitters:

DBS:	**TWTA**	**Output Power: 24.2 dBW/Channel**
Ranging and Command	**Klystron**	**Output Power: 29.0 dBW/Channel**

Gain of transmitters is adjustable so that proposed EIRP can be maintained.

DBS Antenna Facilities:

7.7 Meter Antennas at 12 GHz

Gain: 57.3 dBi at 12.7 GHz

Center of Radiation: 22 Ft AGL

Site Elevation: 2430 Ft AMSL

13.0 Meter Vertex-Fed Cassegrainian Reflectors at 17 GHz

Gain: 64.7 dBi at 17.8 GHz

Center of Radiation: 30 Ft AGL

Site Elevation: 2430 Ft AMSL

File No. DBS-81-01-ESP/L-83

The hours of operation of this station are not limited.

These facilities shall be used for the reception of only such programming material that the grantee has been authorized to receive and use by the owner of the programming material.

Upon completion of construction, but prior to the operation of this station, the grantee shall conduct the radiation level survey required by paragraph 95 of the Commission's *Memorandum Opinion and Order* adopted December 21, 1972, in Docket No. 16495 (38 FCC 665, 704) and submit this survey to the Commission.

This authorization is issued on the grantee's representations that the statements contained in the application(s) for these facilities are true and that the undertakings described in such application(s), so far as they are consistent with this authorization, will be carried out in good faith.

The conditions and provisions set forth herein do not necessarily embody the full text of the formal authorization and do not preclude the Commission from requiring compliance with additional conditions and provisions as may be deemed appropriate.

SEPARATE STATEMENT
OF
COMMISSIONER HENRY M. RIVERA

Re: Applications of Satellite Television Corp. for Modification of Construction Permit to Establish an Interim Direct Broadcast Satellite System

I continue to be concerned about the effect of STC's venture on Comsat's ability to discharge its basic mission.[1] Therefore, I am especially pleased the Commission has rejected STC's request for western orbital assignments at this time.[2] I will continue to monitor the situation closely.

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[1] *See Satellite Television Corp.*, 91 FCC 2d 953, 1001 (1982) (Concurring Statement of Commissioner Henry M. Rivera.

[2] *See* Memorandum Opinion and Order at para. 9.

Common Carrier, Acquisition of Facilities

Report and Order adopted eliminating the Section 214 filing requirement for certain non-common carrier offerings.
—*Section 214 Authorization*
CC Docket No. 84-28

FCC 84-198

BEFORE THE

FEDERAL COMMUNICATIONS COMMISSION

WASHINGTON, D.C. 20554

In the Matter of Blanket Section 214 Authorization for Provision by a Telephone Common Carrier of Lines for its Cable Television and other Non-Common Carrier Services Outside its Telephone Service Area	CC Docket No. 84-28

REPORT AND ORDER
(Proceeding Terminated)

Adopted May 10, 1984; Released: May 17, 1984

BY THE COMMISSION:

I. Introduction

1. The Notice of Proposed Rulemaking in this proceeding[1] discussed the costs and benefits of having common carriers or their affiliates file applications for certain lines under Section 214 of the Communications Act of 1934, 47 U.S.C. § 214. Broadly interpreted, this section requires common carriers and their affiliates to obtain Commission authorization prior to construction, acquisition, or operation of any line. The *Notice* tentatively concluded that separate, individual applications under Section 214 are not in the public interest for lines provided by a telephone common carrier or its affiliate outside of the carrier's telephone service area which are (a) channels used for its own cable television service, or (b) used to provide non-common carrier services. The Commission proposed to eliminate the Section 214 filing requirement for these lines.

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[1] 49 Fed. Reg. 3213 (January 26, 1984).

2. Fifteen parties filed comments on the proposal.[2] Thirteen parties, including the U.S. Department of Justice and the National Telecommunications and Information Administration, support the proposal. These parties view Section 214 applications for these lines as unnecessary regulatory burdens which can impair competition, delay service to consumers, and increase costs. One other party, National Cable Television Association, does not oppose the proposal, recognizing that the dangers of exclusionary conduct and cross-subsidization are low when a telephone company operates a cable system outside its telephone service area. Finally, California Cable Television Association would support the proposal only if the Commission adopts structural safeguards to protect ratepayers. None of the commenters challenges our legal authority to eliminate any requirement of separate, individual Section 214 applications for the lines covered by the proposal. *See* Competitive Carrier Rulemaking, 85 FCC 2d 1, 41-42 (1980) (First Report).

II. Discussion

3. We do not restate the analysis presented in the *Notice*. We address five issues raised in the comments in connection with eliminating the Section 214 filing requirement for these lines. First, the U.S. Department of Justice recommended care in defining "telephone common carrier" and "telephone exchange area." This order distinguishes exchange telephone common carriers from other telephone common carriers. First, this order eliminates, to the extent that elimination is necessary, the Section 214 filing requirement when an *exchange telephone common carrier* or its affiliate provides three categories of lines in a domestic area where that carrier and all its affiliates do not provide exchange telephone service. The categories of lines are: (1) lines for its own cable television service; (2) lines which it uses solely to provide non-common carrier services; and (3)

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[2] Parties filing comments are the U.S. Department of Justice; National Telecommunications and Information Administration; United States Telephone Association; Rural Telephone Coalition; National Cable Television Association; California Cable Television Association; Central Corp.; Michigan Public Service Commission; The Bell Telephone Company of Pennsylvania, The Chesapeake and Potomac Telephone Companies, The Diamond State Telephone Company, Nevada Bell, New England Telephone and Telegraph Company, New Jersey Bell Telephone Company, New York Telephone Company, Pacific Bell, South Central Bell Telephone Company, Southern Bell Telephone and Telegraph Company, and Southwestern Bell Telephone Company; The Mountain States Telephone and Telegraph Company, Northwestern Bell Telephone Company, and Pacific Northwest Bell Telephone Company; Telephone and Data Systems; Schaller Telephone Company; CP National Corp.; Century Telephone Enterprises, Inc., and Continental Telecom Inc. Reply comments were filed by the U.S. Department of Justice, various Bell Operating Companies, Rural Telephone Coalition, National Cable Television Association, Telephone and Data Systems, and California Cable Television Association.

lines which it sells to an unaffiliated party.[3] A specific Section 214 application would not be required when an exchange telephone common carrier or its affiliate seeks to construct such lines in an area where none of its affiliates provides exchange telephone service but some affiliate provides a service other than exchange telephone service, *e.g.*, interexchange service. Second, we also eliminate, to the extent that elimination is necessary, the Section 214 filing requirement when a *nondominant carrier*[4] (or its affiliate) *not affiliated with an exchange telephone common carrier* provides any of these three categories of lines between any domestic points. Provision of such lines by these carriers does not create the concerns about exclusionary conduct that underlie the cross-ownership rules, 47 C.F.R. §§ 63.54-63.56. The language in the attached rule reflects these clarifications.

4. Second, the National Cable Television Association recommended that we clarify the definition and implications of affiliation. For purposes of the rule adopted in this order, we define affiliate as in 47 C.F.R. § 63.54. An affiliate is any entity "owned by, operated by, controlled by, or under common control with the telephone common carrier," 47 C.F.R. § 63.54(a), and includes "any financial or business relationship whatsoever by contract or otherwise." 47 C.F.R. § 63.54 Note 1(a). At this time, we view as affiliates Bell Operating Companies in the same regional holding company; but, Bell Operating Companies in different regional holding

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[3] This Order does not affect the scope of non-common carrier services or sales. *See, e.g.*, FCC v. Midwest Video, 440 U.S. 689, 701 (1979); National Association of Regulatory Utility Commissioners v. FCC, 525 F.2d 630, 642 (D.C. Cir.), *cert. denied*, 425 U.S. 999 (1976); Domestic Fixed-Satellite Transponder Sales, 90 FCC 2d 1238, 1257 (1982), *appeal pending sub nom.* World Communications, Inc. v. FCC, D.C. Cir. No. 82-2054 (appeal filed September 10, 1982); Special Construction of Lines and Special Service Arrangements Provided by Common Carriers, FCC 84-369 (adopted April 11, 1984). Nor does this Order affect the requirement for a Section 214 filing when an exchange carrier provides lines on a common carrier or non-common carrier basis in its exchange service area. Finally, we do not hereby modify in any way state and local regulation of cable television systems.

[4] We found that certain classes of carriers are nondominant in the Competitive Carrier Rulemaking. 77 FCC 2d 308 (1979) (Notice), 85 FCC 2d 1 (1980) (First Report), 84 FCC 2d 445 (1981) (Further Notice), 91 FCC 2d 59 (1982) (Second Report), *reconsid.*, 93 FCC 2d 54 (1983), 48 Fed. Reg. 46791 (October 14, 1983) (Third Report), 48 Fed. Reg. 52452 (November 18, 1983) (Fourth Report). We granted nondominant carriers blanket Section 214 authority in that proceeding. Any carrier found nondominant in the future also would be covered by this treatment. Because American Telephone and Telegraph Co. (AT&T) is currently treated as a dominant carrier, this order does not affect the Section 214 filing requirements of this carrier. We are developing information on the costs and benefits of the Section 214 filing requirements on AT&T in Long-Run Regulation of AT&T's Basic Domestic Interstate Services, 48 Fed. Reg. 51340 (November 8, 1983). We did not address possible Section 214 authority for AT&T to construct cable television systems in the *Notice*. We will consider including such a proposal in a future *Notice* of Proposed Rulemaking.

companies do not appear to have the financial or business relationship necessary to make them affiliates for purposes of this rule. This rule does not eliminate any requirement for an affiliate of an exchange telephone common carrier to obtain Section 214 authorization for lines within the exchange telephone service area of that carrier. For example, the attached rule should allow Illinois Bell or its affiliate to construct lines for its own cable television system without a specific Section 214 application in an exchange area served by New York Telephone, but not in one served by Indiana Bell.[5] As another illustration, the attached rule does not eliminate the Section 214 application requirement for any exchange carrier owned, in whole or part, by General Telephone and Electronics Corp. or any other GTE subsidiary to construct lines for its cable television system in an exchange area served by General Telephone of California.

5. Third, the Rural Telephone Coalition stated that the elimination of Section 214 applications should include filings that might be required to "discontinue, reduce or impair service" via lines covered by the proposed rule. If such applications are currently required, delay in approving such discontinuances would impose costs on the supplier of the lines and, thereby, on consumers. Regulation of such discontinuances does not promote the goal of widespread availability of telephone service, 47 U.S.C. § 151. Nor do we require applications for such discontinuances by cable television systems or other suppliers of lines not affiliated with a common carrier. Finally, requiring applications for such discontinuances when an exchange carrier owns a cable television system in its exchange telephone service area does not promote the goals of the cross-ownership rules, i.e., limiting cross-subsidies and increasing competition, 47 C.F.R. § 63.54. For these reasons, we adopt the attached rule provision which eliminates, to the extent that elimination is necessary, any requirement of Section 214 applications for discontinuances for any cable television systems.

6. Fourth, Telephone and Data Systems requested that the Commission grant Section 214 authority for all existing cable television channels and other lines for non-common carrier services provided by a common carrier or its affiliate outside of the carrier's exchange telephone service area. Apparently, some carriers or their affiliates relied on an interpretation of Section 214 as not applying to such lines. Because we affirm our tentative finding that all such lines serve the public convenience and necessity, we do not believe that the public interest would be promoted by determining in which cases Section 214 applications should have been filed and then imposing cease-and-desist orders, penalties, or forfeitures on

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[5] This Order involves no judgment as to the ability of the Bell Operating Companies to provide the three types of lines covered by this Order consistent with the Modification of Final Judgment, United States v. AT&T, 552 F. Supp. 131 (D.D.C. 1982), *aff'd sub nom.* Maryland v. United States, 103 S. Ct. 1240 (1983).

those carriers for providing lines without Section 214 certificates. 47 U.S.C. §§ 214(c), 501-503. In *General Telephone Co. of California*, 13 FCC 2d 448, 467 (1968), *aff'd sub nom. General Telephone Co. of California v. Federal Communications Commission*, 413 F.2d 390 (D.C. Cir), *cert. denied*, 396 U.S. 888 (1969), we permitted each channel distribution facility completed and in operation on or before release of that decision to continue in operation provided a Section 214 application was filed within twenty days with certain supporting data. As in that case, there does not appear to be a flagrant violation of the Communications Act by the construction of lines considered here and "grandfathering" seems warranted. In view of our decision here to eliminate any need for Section 214 applications for such lines, we do not believe that Section 214 applications for existing lines considered here would serve the public interest.

7. Finally, California Cable Television Association urges the Commission to adopt structural separation between an exchange telephone carrier's telephone and cable television operations along with eliminating certain Section 214 applications. We reject this suggestion. We have not required such separation when we approved Section 214 applications for exchange telephone carriers to provide cable television channels outside of their telephone exchange service areas. *See, e.g., Eagle Telecommunications*, FCC 83-459 (released November 7, 1983). We see no reason why a rule eliminating any requirement for such applications should engender the need for structural separation. However, as we have done in cases of cable television systems owned by exchange telephone common carriers and some other non-common carrier offerings by common carriers, we require that common carriers record the costs of providing the non-common carrier offerings covered by this Order on books of account separate from those of its common carrier services.[6] Moreover, the costs on the separate books must at minimum cover the direct, indirect and overhead expenditures incurred for such offerings. The attached rule includes this requirement.

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[6] *See* Concord Telephone Exchange, 78 FCC 2d 676, 682 (1980) (requiring that books of account for an exchange carrier's CATV operation separate from books of account for the exchange telephone services be maintained to prevent any construction and operation of the CATV system from being subsidized by, or from burdening, common carrier services); *Second Computer Inquiry*, 77 FCC 2d 384, 476, *reconsid.*, 84 FCC 2d 50 (1980), *further reconsid.*, 88 FCC 2d 512 (1981), *aff'd sub nom.* Computer and Communications Indus. Ass'n. v. FCC, 693 F.2d 198 (D.C. Cir. 1982), *cert. denied*, 103 S. Ct. 2109 (1983) (requiring separate books of account for common carriers' offering of customer-premises equipment and enhanced services).

III. Regulatory Flexibility Act Analysis

8. We conclude that the attached rule will have a positive economic impact on a substantial number of small entities within the meaning of the Regulatory Flexibility Act of 1980, 5 U.S.C. § 605(b) (1982). This rule will extend the Commission's deregulatory program. The rule will apply equally to all telephone common carriers and their affiliates—small business entities as well as large corporations—and should aid all carriers by eliminating costs and delay in the certification process. No alternative that could be considered would be less burdensome. The legal basis for this action is shown in para. 9 *infra*.

IV. Conclusion

9. We find that, to the extent that Section 214 authorization is required, it is in the public interest that common carriers construct, acquire, or operate any of the lines covered by the attached rule. Pursuant to Sections 4(i), 4(j), 214 and 403 of the Communications Act of 1934, as amended, 47 U.S.C. §§ 4(i), 4(j), 214, and 403, this Order and the attached rule ARE ADOPTED. The rule change will become effective on June 25, 1984.

FEDERAL COMMUNICATIONS COMMISSION

WILLIAM J. TRICARICO, *Secretary*

Attachment

Para 63 - [AMENDED]

Part 63 of Chapter 1 of Title 47 of the Code of Federal Regulations is amended by adding § 63.08 as follows:

§ 63.08 [New] Lines outside of a carrier's exchange telephone service area.

(a) An exchange telephone common carrier or its affiliate is not required to file for authority pursuant to 47 U.S.C. § 214 and 47 C.F.R. § 63.01 to provide lines, or for existing lines, outside of the exchange telephone service area of that carrier and any of its affiliates when the lines are (i) for its own cable television service; (ii) for its non-common carrier services; or (iii) sold to an unaffiliated party. "Affiliate" is defined as in 47 C.F.R. § 63.54.

(b) If a nondominant common carrier and its affiliates are not affiliated with an exchange telephone common carrier, the nondominant carrier or its affiliate is not required to file for authority pursuant to 47 U.S.C. § 214 and 47 C.F.R. § 63.01 to provide lines, or for existing lines, of the types described in subsection (a) between any domestic points. "Affiliate" is defined as in 47 C.F.R. § 63.54 and "nondominant" is defined as in 47 C.F.R. § 61.15a.

(c) A common carrier or its affiliate is not required to file for authority pursuant to 47 U.S.C. § 214 and 47 C.F.R. § 63.01 to discontinue, reduce, or impair its own cable television service or any other non-common carrier service.

(d) A common carrier's costs of providing lines for non-common carrier offerings and costs of providing such offerings must be entered on books of account separate from those for its common carrier services.

Common Carrier
Customer Premises Equipment
Rulemaking, Notice of Proposed

Commission adopted notice of proposed rulemaking regarding a framework for the acquisition of customer premises equipment by federal agencies for national security purposes, and proposing the detariffing of equipment owned by independent telephone companies and tariffed at the federal level.
—*Telecommunications Equipment*
CC Docket No. 81-893

FCC 84-238

BEFORE THE
FEDERAL COMMUNICATIONS COMMISSION
WASHINGTON, D.C. 20554

In the Matter of Procedures for Implementing The Detariffing of Customer Premises Equipment and Enhanced Services (Second Computer Inquiry)	CC Docket No. 81-893

SECOND FURTHER NOTICE OF PROPOSED RULEMAKING

Adopted: May 24, 1984; Released: June 20, 1984

BY THE COMMISSION:

I. Introduction

1. This Notice addresses two issues regarding Commission policies relating to the provision of customer premises equipment (CPE). First, this Notice proposes several options for a framework under which certain federal agencies[1] may obtain CPE needed for national security and emergency preparedness (NSEP) functions, and may arrange for mainte-

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[1] The federal agencies involved are the Department of Defense (DoD), the Department of Energy, the Department of the Interior, the Department of Transportation (including the Federal Aviation Administration and the Coast Guard), the General Services Administration, the Central Intelligence Agency, the Federal Emergency Management Agency, the National Aeronautics and Space Administration, the United States Information Agency, and the Nuclear Regulatory Commission. These agencies are hereinafter referred to as the "specified federal agencies."

nance and servicing of this CPE, in a manner which is consistent with the principles and goals we have established in *Second Computer Inquiry*.[2] Second, this Notice proposes and seeks comment with regard to a structure for the detariffing of embedded CPE which is owned by independent telephone companies and is tariffed at the federal level.

II. Background

2. The rules we established in *Second Computer Inquiry*[3] require the American Telephone and Telegraph Company (AT&T) to provide CPE through a fully separated subsidiary which is not subject to any state or federal tariff regulation. Regulated entities of AT&T, such as AT&T Communications (AT&T-C), are prohibited from engaging in CPE offerings. Equipment previously provided by the Bell Operating Companies (BOCs) was transferred to AT&T in the course of the divestiture of the Bell System, and the newly divested BOCs are authorized to engage in the retail marketing of new CPE through separate organizational structures.[4]

3. We adopted a circumscribed waiver of the Computer II Rules in 1983 to permit the BOCs and AT&T-C to furnish new CPE to federal agencies to meet critical NSEP communications needs.[5] The Department

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[2] Amendment of Section 64.702 of the Commission's Rules and Regulations (Second Computer Inquiry), 77 FCC 2d 384, *reconsideration*, 84 FCC 2d 50 (1980), *further reconsideration*, 88 FCC 2d 512 (1981), *aff'd sub nom.* Computer & Communications Industry Ass'n v. FCC, 693 F. 2d 198 (D.C. Cir. 1982), *cert. denied sub nom.* Louisiana Pub. Serv. Comm'n v. FCC, 103 S.Ct. 2109 (1983).

[3] Section 64.702 of the Commission's Rules and Regulations, 47 C.F.R. § 64.702 (hereinafter Computer II Rules).

[4] The CPE retail marketing authority of the BOCs is established in the Modification of Final Judgment (MFJ) approved by the United States District Court for the District of Columbia (hereinafter District Court). *See* United States v. American Tel. & Tel. Co., 552 F.Supp. 131 (D.D.C. 1982), *aff'd sub nom.* Maryland v. United States, 103 S.Ct. 1240 (1983) (hereinafter United States v. AT&T). We have required the BOCs to establish separate organizational structures to market new CPE. Policy and Rules Concerning the Furnishing of Customer Premises Equipment, Enhanced Services and Cellular Communications Services, CC Docket No. 83-115, Report and Order, FCC 83-552, 49 Fed. Reg. 1190 (released Dec. 30, 1983), *reconsideration*, FCC 84-252 (released June 1, 1984) (hereinafter BOC Structure Order).

Under the MFJ, most embedded CPE owned by the Bell System was transferred to AT&T on January 1, 1984, the date of divestiture. We have acted in this docket to permit this embedded CPE to be detariffed and transferred to AT&T Information System (ATTIS) as of the divestiture date, subject to certain requirements and procedures. CC Docket No. 81-893, Report and Order, FCC 83-551, 48 Fed. Reg. 57168 (released Dec. 15, 1983), *reconsideration petitions pending*, Public Notice No. 1445, 49 Fed. Reg. 5672 (released Feb. 6, 1984) (hereinafter CPE Detariffing Order).

[5] American Telephone and Telegraph Company, Petition for Waiver of Section 64.702 of the Commission's Rules and Regulations with Respect to the Department of Defense and Specified Government Agencies, ENF 83-13, Memorandum Opinion and Order, FCC 83-143 (released Apr. 12, 1983) (hereinafter CPE Waiver Order). The terms and conditions of

of Defense (DoD) and other specified federal agencies were authorized to obtain new CPE from AT&T-C and the BOCs in emergencies declared by the President and in certain other emergencies.[6] We also authorized DoD and other specified federal agencies to obtain service from AT&T-C and the BOCs in other situations in which sole source procurement is permitted under federal regulations, but we required the identification of at least one other CPE supplier. AT&T-C and the BOCs then would either directly supply the CPE (if they were selected by the government agency involved) or would obtain the CPE from the supplier selected by the agency. *CPE Waiver Order* at para. 16. New CPE furnished under the waiver could not be provided under tariff or added to the embedded rate base. The waiver was to expire on the date of divestiture. *Id.* at para. 18.

4. The treatment of embedded CPE used in NSEP communications systems was not specifically addressed in the *Notice of Proposed Rulemaking* in this docket.[7] In commenting on the *Notice,* Federal Executive Agencies (FEA) argued that embedded CPE associated with certain systems and circuits[8] should not be detariffed and transferred to

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the CPE Waiver Order may be summarized as follows: (1) In presidentially declared emergencies and other emergencies (as defined in DCA Circular 310-130-1), DoD and other specified federal agencies may obtain service, including new CPE, from AT&T-C or regulated BOC entities. (2) In other situations in which sole source procurement is permitted under applicable federal regulations, DoD and other specified federal agencies may obtain new CPE from AT&T-C or regulated BOC entities. (3) In this latter case, however, AT&T-C or the BOC involved must (a) indicate whether the CPE is available from embedded inventory and, if it is not, identify the CPE which is unavailable; (b) identify at least one unaffiliated supplier which can supply the CPE (unless they have no knowledge of such a supplier); and (c) obtain the CPE from the supplier selected by the federal agency. (4) CPE obtained under the waiver may not be provided under tariff or added to the rate base. (5) Title to any new CPE may be held by the federal agency, AT&T-C, the BOC, or the third party CPE supplier. *See* CPE Waiver Order at paras. 15-17.

[6] Defense Communications Agency Circular 310-130-1, ch. II, para. 2 (Feb. 1982) defines these other emergency situations. *See* CPE Waiver Order at para. 7 n.6.

[7] Docket No. 81-893, Notice of Proposed Rulemaking, 94 FCC 2d 76 (1983) (hereinafter Notice).

[8] FEA listed the following systems and circuits as being covered by its request that CPE associated with NSEP functions not be detariffed and transferred to ATTIS: (1) The following Department of Defense systems: Automatic Secure Voice Communications Network (AUTOSEVOCOM); Joint Chiefs of Staff systems (JCS Alerting Network and Minuteman); Strategic Air Command systems (SAC Primary Alerting System; SAC Operations Conference System; and SAC Command Post Command and Control Consoles); North American Air Defense Command (NORAD) Alerting System; Tactical Air Command systems (TAC Command and Control Alerting System and TAC Force Control Management System); Military Airlift Command (MAC) Operational Phone System; Air Force Digital Graphics System (AFDIGS); Air Force Command Post Alerting Network (COPAN); and Air Force Command Post Record Capability (COPREC). (2) The U.S. National Airspace System in the Federal Aviation Administration. (3) The following Federal Emergency Management Agency systems: a classified FEMA system provided

AT&T Information Systems (ATTIS), but rather should be transferred to AT&T-C so that end-to- end service to DoD and other specified federal agencies could be maintained.

5. In the *CPE Detariffing Order*, we concluded that CPE associated with the systems and circuits designated by FEA would be detariffed and transferred to ATTIS together with other CPE in AT&T's embedded base. *CPE Detariffing Order* at para. 172. We provided, however, that this detariffing of CPE used with NSEP systems would not occur until June 1, 1984, in order to give interested parties an opportunity to comment on the issues raised by FEA and to request waivers of the detariffing requirements as made applicable to the special systems and circuits identified by FEA. *Id.*

6. AT&T, at the request and on behalf of DoD and other specified federal agencies, submitted a petition for such a waiver and for related waivers.[9] The AT&T request for waivers contained four elements: (1) permit embedded CPE associated with the designated NSEP systems and circuits to be transferred to ATTIS as of January 1, 1984; (2) waive the Computer II Rules, as of January 1, 1984, to the limited extent necessary to permit AT&T-C to be responsible for this embedded CPE as part of its end-to-end service, even though ATTIS would own the CPE; (3) permit AT&T-C to continue obtaining new CPE for these designated systems and circuits; and (4) authorize AT&T-C to continue serving as a single point of contact for the provision of CPE associated with emergency communications service.

7. On December 29, 1983, the Chief, Common Carrier Bureau, adopted an *Order* in this docket granting the waiver requests subject to certain terms and conditions.[10] The *Bureau Waiver Order* waived the provisions of the *CPE Detariffing Order* which required that embedded CPE associated with NSEP systems must be tariffed at the federal level until June 1, 1984, waived the Computer II Rules in the manner sought by AT&T, and extended all the provisions of the *CPE Waiver Order* (but narrowed the waiver to apply only to the 21 systems and circuits

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under AT&T Tariff FCC No. 260; Emergency Broadcast System; FEMA National Voice System; and FEMA National Warning System. (4) The NRC Emergency Notification System in the Nuclear Regulatory Commission. (5) The following White House Communications Agency systems and equipment: transportable electric consoles; Echo Fox Radio System. FEA Direct Comments at 12-13. The Central Command systems in the Department of Defense (CENTCOM Army Alert Hotline, CENTCOM Air Force Alert Hotline, and CENTCOM Navy/Marine Corps Alert Hotline) were originally listed by FEA but later were deleted because AT&T-C currently is not responsible for CPE for these systems. *See* CPE Detariffing Order at para. 171 & n.146.

[9] AT&T Petition, ENF 83-13 (filed Dec. 14, 1983).

[10] CC Docket No. 81-893, Order, Mimeo No. 1705 (released Jan. 10, 1984) (hereinafter Bureau Waiver Order).

designated by FEA). *See Bureau Waiver Order* at paras. 13-17. As part of this extension, AT&T was required to continue submitting quarterly reports as required in the *CPE Waiver Order*, and the *Bureau Waiver Order* provided that "costs related to the ownership, installation, and maintenance of [the covered] CPE shall not be borne by AT&T Communications and shall be segregated and charged separately from costs incurred by AT&T Communications in connection with its tariffed services." *Id.* at para. 18.

8. The *Bureau Waiver Order* established waivers on a temporary basis, providing that the waivers would expire on May 31, 1984. *Id.* at para. 21. The Bureau also noted that it would recommend the issuance of a proposed rulemaking in this docket "in order to solicit comments from all interested parties regarding an appropriate framework for meeting the NSEP communications needs of DoD and the specified federal agencies in a manner which gives due consideration to Second Computer Inquiry requirements and principles." *Id.* at para. 1 n.4. The purpose of this Notice is to provide a forum in which FEA's concerns can be addressed and we can initiate our efforts to establish a permanent structure for accommodating the critical NSEP communications needs of DoD and other specified federal agencies.[11]

III. Provisions of CPE for NSEP Functions

9. We are proposing four options for the establishment of a framework for the provision of CPE to meet national defense and emergency communications needs. Under the first option, with regard to the provision of new CPE by AT&T and the BOCs[12] for NSEP communications functions, we propose as a long-term solution an amendment to the Computer II Rules, or a permanent waiver of the Computer II Rules, which would permit AT&T-C (and regulated BOC entities) to maintain end-to-end responsibility for servicing a limited class of critical NSEP systems and circuits. This approach consists of the following elements. First, both AT&T-C and the BOCs would be permitted to be responsible

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[11] On February 9, 1984, the Bell Atlantic Companies submitted to the Chief, Common Carrier Bureau, a Petition for Partial Reconsideration of the Bureau Waiver Order seeking certain clarifications of the Bureau's action. On February 23, 1984, DoD and certain member agencies of the National Communications System filed an opposition to the Bell Atlantic petition. GTE Service Corporation submitted comments regarding the Bell Atlantic petition on March 5, 1984, and AT&T filed an opposition to the petition on March 12, 1984. These filings have been referred to the Commission by the Bureau and will be held in abeyance until we take further action based on this Notice.

[12] Under our BOC Structure Order, the BOC's have been required to market new CPE through a separate organizational structure. We here are also seeking comment on whether we should waive that requirement with regard to NSEP communications functions, in order to enable the regulated BOC entities to offer end-to-end services to DoD and other specified federal agencies.

for the acquisition of limited amounts of new CPE (to augment or replace embedded CPE) on behalf of DoD and other specified federal agencies in accordance with the terms of the CPE *Waiver Order.*[13] We invite interested parties to propose and discuss additional terms and conditions which may be necessary to ensure that the arrangements proposed here do not result in unreasonably preferential treatment for AT&T-C or the BOCs. We also request interested parties to comment on whether, and if so, how, we might establish mechanisms which would require carriers and vendors to furnish CPE to AT&T-C or the BOCs (or any other entity established as a single point of contact as a result of this proceeding or otherwise functioning as a single point of contact) on a priority basis to ensure that the government's NSEP needs are met. Second, the terms of the *CPE Waiver Order* (as these terms relate to national security communications systems and circuits) would be narrowed so that AT&T-C and the BOCs would be able to obtain new CPE under the waiver only with regard to the NSEP systems and circuits identified by FEA.[14]

10. Third, we propose that the waiver would continue to apply to the provision of new CPE for emergency communications services, as described in the *CPE Waiver Order*. Fourth, new CPE which is not needed to augment or replace embedded CPE associated with the systems and circuits identified by FEA (or associated with emergency communications services) would not be covered by this proposed amendment or waiver of the Computer II Rules. AT&T and the BOCs would be required to provide this new CPE consistent with the Computer II Rules, or would have to seek specific waivers of the Computer II Rules with respect to this new CPE. Fifth, in cases in which AT&T-C personnel make premises visits when the source of a trouble report is CPE obtained by DoD or the other specified federal agency involved from ATTIS and used for NSEP communications functions, AT&T-C would be required to bill a maintenance of service charge to DoD or the other specified federal agency in accordance with any applicable tariffs.[15] Sixth, the quarterly reporting requirements which were extended in the *Bureau Waiver Order* would remain in place. *See Bureau Wavier Order* at para. 18. Seventh, AT&T-C or the regulated BOC entity involved would in effect function as a general contractor in providing communications services to DoD and other specified federal agencies. AT&T-C or the BOC would arrange for the procurement of new CPE in conjunction with providing these services, and

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[13] For a summary of the terms and conditions of the CPE Waiver Order, see para. 3 n. 5, *supra.*

[14] See para. 4 n. 8, *supra.*

[15] *See, e.g.,* American Tel. & Tel. Co., Maintenance of Service Charges Associated with Private Line Service and Dataphone Digital Service, FCC Tariffs No. 260 and 267, Declaratory Ruling by the Chief, Common Carrier Bureau, Mimeo No. 7640 (released Jan. 5, 1984).

would be authorized (but not required) to take title to the CPE. Further, the new CPE would not be tariffed and would not be added to the regulatory revenue requirements, and expenses incurred by AT&T-C or the BOC in connection with making such procurement arrangements would be recorded as "below-the-line" expenses. We request parties to comment regarding whether we should establish requirements, under this option and the following options, governing the holding of title to the CPE, or whether this should be left to the discretion of the parties to the transactions involved. It is our tentative view that the approach suggested in this option sufficiently accommodates the needs and concerns of DoD and other specified federal agencies while also minimizing any variance from the general goals of the *Second Computer Inquiry*.

11. With regard to embedded CPE used in connection with the 21 systems and circuits identified by FEA and in connection with emergency communications services, the long-term solution proposed in this first option would provide that all this embedded equipment currently owned by AT&T shall be detariffed and transferred to ATTIS. As we have noted, this action already has been taken on an interim basis in the *Bureau Waiver Order*. We propose that this detariffing and transfer would be carried out in accordance with the conditions and requirements established in the *CPE Detariffing Order*. For example, ATTIS would be required to establish sale prices and lease rates for the embedded CPE during a transition period in accordance with the terms of the *CPE Detariffing Order*. Further, we request parties to comment regarding the valuation standard which should be used for this embedded equipment, and regarding whether (for purposes of valuation and the establishment of sale prices) the rules of the *CPE Detariffing Order* should apply and this CPE should be aggregated together with all other multi-line CPE transferred to ATTIS. We also propose that the transition period for this transferred equipment should begin no earlier than the effective date of the Order we adopt in this proceeding. We further propose, under this option, to amend the Computer II Rules, or grant a permanent waiver of the Computer II Rules, to enable AT&T-C to be responsible for this embedded CPE and to serve as a single point of contact for DoD and other specified federal agencies. Under this approach, the terms and conditions of the *Bureau Waiver Order* would continue to apply. In the case of any embedded CPE retained by the BOCs and used in connection with NSEP functions, such as circuit switching units and network channel terminating equipment, we propose the same arrangement as we are proposing for AT&T. We have tentatively concluded that this approach achieves the greatest degree of consistency with *Second Computer Inquiry* principles while also fulfilling our mandate under Section 1 of the Communications Act of 1934, 47 U.S.C. § 151, to assist the Nation's defense and protect the

safety and property of its inhabitants. Implementation of *Second Computer Inquiry* policies is achieved, under this first option, by applying price predicability and other transitional requirements to the transferred embedded equipment, and by continuing in place the requirement that AT&T-C identify non-affiliated CPE vendors who are capable of meeting particular federal agency equipment needs. National defense concerns are accommodated by easing the application of *Second Computer Inquiry* requirements regarding the 21 systems which DoD has identified as critical to defense needs, and by constructing a framework which enables the federal government to draw upon the experience and expertise of AT&T-C personnel in maintaining these systems on an end-to-end basis.

12. Under the second option, AT&T-C would retain or receive ownership of embedded CPE associated with the critical NSEP systems and circuits identified by FEA. This option also would require that AT&T-C be permitted to own and provide new CPE associated with these critical systems and circuits. AT&T-C also would be authorized to own and provide new CPE needed to meet emergency communications needs. Embedded CPE used in connection with emergency communications needs would remain with ATTIS (as provided in the *Bureau Waiver Order*), but AT&T-C would be permitted to provide end-to-end service, including the provision of embedded CPE, in emergency situations. The equipment would not be provided under tariff or included in regulatory revenue requirements, and AT&T-C would have to follow separate accounting procedures. This approach constitutes a close approximation of the *status quo* regarding the service relationship between AT&T and DoD and other specified federal agencies, but it is our tentative view that such an approach would result in too great a departure from the principles and objectives of the *Second Computer Inquiry*. We are, however, soliciting comments regarding this option so that we can better evaluate whether this is a useful means for ensuring that critical defense and emergency preparedness needs are met.

13. The third option involves expanding the role of Bell Communications Research Incorporated (BCR)[16] established in the AT&T Plan of Reorganization[17] to supplant any end-to-end responsibility for NSEP communications needs currently performed by AT&T-C. The AT&T Plan, as amended and approved by the District Court, contemplates that:

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[16] This organization was previously known as the Cental Staff Organization and the Central Services Organization. We note that, although the discussion here addresses BCR, we also invite comments regarding whether other industry organizations or other organizations could perform the role described here.

[17] AT&T Plan of Reorganization, United States v. AT&T (filed Dec. 16, 1982) (hereinafter AT&T Plan). The AT&T Plan, in pertinent part, has been approved by the District Court. *See* United States v. Western Electric Co., 569 F.Supp. 990 (D.D.C.), *aff'd sub nom.* California v. United States, 104 S. Ct. 542 (1983).

> [T]he BOCs and the centralized government communications group [within BCR] will cooperate fully with the interexchange and intraexchange carriers and equipment vendors involved to provide efficient service. Specifically, the centralized group will, if the government desires, serve as a point of contact for other carriers and vendors to arrange for the installation, joint testing, maintenance, restoration, repair and all other operational aspects of BOC-provided NSEP services that are interconnected with services provided by other carriers.

AT&T Plan at 421.

14. The AT&T Plan provides that "AT&T will retain in its regulated entity its existing government communications organization which will continue to perform all of its NSEP functions other than those transferred to the Central Staff Organization under this Plan of Reorganization." *Id.* at 423-24. The AT&T Plan also indicates that this government communications organization:

> [W]ill continue to provide a single point of contact for the government with AT&T affiliates for both NSEP situations and those long term research, manufacturing or equipment needs that require the resources of Western Electric, Bell Telephone Laboratories or other AT&T affiliates. If the government desires, the AT&T organization will also serve as a point of contact for the government to coordinate NSEP communications requests that require interconnection between an AT&T affiliates' service and a service provided by a BOC or another exchange carrier.

Id. at 424.

15. Under the option described here, BCR would replace the government communications organization within AT&T and would become the industry-wide point of contact for DoD and other specified federal agencies for all NSEP communications needs. BCR would be responsible for coordinating all service and equipment arrangements with regulated BOC entities and independent exchange carriers, with AT&T-C and ATTIS, and with other interexchange carriers and vendors selected by the federal agencies involved. BCR would not play any direct role in the selection process. Under this approach, full *Second Computer Inquiry* separation requirements would apply regarding relationships between AT&T-C and ATTIS, and between regulated and unregulated BOC entities. With regard to AT&T, embedded CPE used in connection with the 21 designated systems and emergency communications services would be detariffed and transferred to ATTIS pursuant to the valuation, sale, and price predictability requirements discussed in the first option. *See* para. 11, *supra*. Although this approach would achieve a desirable level of consistency with *Second Computer Inquiry* principles, it is our tentative view that there may be practical, competitive, and operational problems associated with assigning such a role to BCR. It may be difficult for BCR or any other single entity to achieve the desired level of coordination and cooperation which would be necessary to maintain an industry-wide single point of contact. Carriers and vendors might be reluctant to enter into such a cooperative venture on an extensive basis. Further, there could be

legal impediments to such a centralized structure. Nonetheless, we invite interested parties to comment regarding the viability and advisability of this alternative.

16. The fourth option involves transferring all embedded CPE associated with the designated NSEP systems and circuits to ATTIS, requiring that AT&T provide new CPE for these systems and circuits only through ATTIS, and permitting ATTIS to resell basic transmission service acquired from AT&T-C (or other carriers) for these systems and circuits and for emergency communications services. This approach, in effect, would enable ATTIS, rather than AT&T-C, to function as AT&T's single point of contact for DoD and other specified federal agencies with respect to maintaining and servicing these systems.[18] This alternative constitutes a subset of proposals we already have made in a separate proceeding.[19] The basis for this option is premised on the same intent we expressed in that proceeding: To "allow ATTIS to provide efficient, innovative offerings of basic, resold services in conjunction with enhanced services or customer-premises equipment in a manner that does not promote the acquisition and abuse of market power, cross-subsidies, or discrimination." *ATTIS Resale Notice* at para. 3. In this context this intent is particularized by the NSEP and safety objectives of the Communications Act.

17. There are two aspects to this option. First, ATTIS would be permitted to resell basic transmission service obtained from AT&T-C and associated with any of the designated systems, but AT&T-C would still be required to make these transmission services available to other vendors on an unbundled, nondiscriminatory basis. ATTIS also would be authorized to resell basic transmission services for these systems which ATTIS acquires from unaffiliated carriers. Thus, ATTIS would be in a position to continue serving as a single point of contact in cases in which DoD or other specified federal agencies exercised their option to obtain transmission service for the designated systems from carriers other than AT&T-C. Under this option ATTIS would be required to submit annual reports to the Commission (which would be available to the public) specifying each carrier which provided ATTIS with basic transmission services and the amounts paid by ATTIS for these services.

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[18] Although the text addresses only the situation of ATTIS, we also request comment regarding whether the resale option, if adopted, also should apply to the separate organizational structures established by the BOCs. *See* para. 9 & n.12, *supra*. Further, we seek comment regarding whether such resale by the BOCs should be limited to intra-LATA service.

[19] Provision of Basic Services Via Resale by Separate Subsidiary, CC Docket No. 83-1375, Notice of Proposed Rulemaking, FCC 83-604, 49 Fed. Reg. 1248 (released Jan. 5, 1984) (ATTIS Resale Notice).

18. Second, we seek comment regarding whether, for purposes of such resale, ATTIS should be subject either to streamlined regulation or to forbearance from tariff-filing and facilities-authorization requirements under the Communications Act of 1934.[20] We also seek comments regarding the relative advantages and disadvantages of streamlined regulation and forbearance applied to ATTIS's resold offerings in support of the designated NSEP systems.

19. In requesting comments concerning the costs and benefits of this option, we note our preliminary view that the primary benefit of this approach is that it would permit ATTIS to serve as a single point of contact for purposes of meeting the government's NSEP communications needs. There seems to be sufficient basis for tentatively concluding that important national defense goals are advanced through maintenance of a system which enables the specified federal agencies to make their NSEP communications arrangements on a centralized basis through one vendor. We also seek comments regarding whether the potential problems which we have suggested might result from permitting ATTIS to resell basic service generally[21] also would apply in the context of the resale of basic transmission services associated with the designated NSEP systems and with emergency communications services. We also request parties, in considering this fourth option, to comment regarding whether alternatives other than the extension of resale authority to ATTIS (*e.g.*, permitting ATTIS to function as an agent of DoD for purposes of arranging for transmission services from AT&T-C) would be sufficient to meet our concerns.

IV. Federally-Tariffed CPE Owned by Independent Companies

20. We proposed in the *Notice* a general framework for removing from regulated service embedded CPE owned by the independent telephone companies. *See Notice,* 94 FCC 2d at 109-10. That framework, however, would apply only to embedded equipment currently subject to state tariffs and would not embrace equipment owned by the independents and tariffed at the federal level. Our purpose here is to seek comments from interested parties regarding a proposal for the detariffing of this federally-tariffed embedded equipment.[22] (We will establish rules

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[20] *See* ATTIS Resale Notice at para. 14 & n. 25. The type of streamlined regulation and forbearance discussed here is the same as that specified in the ATTIS Resale Notice. As noted in the ATTIS Resale Notice, certain obligations under Title II of the Communications Act of 1934 (*e.g.*, the complaint process and the requirement of just, reasonable, and nondiscriminatory rates) would apply to ATTIS's resold services.

[21] *See id.* at para. 9 & nn. 18-20.

[22] It should be noted that, under the CPE Detariffing Order, no distinction was made between Bell System embedded CPE tariffed at the state or federal level. Embedded equipment owned by AT&T, or owned by the BOCs and transferred to AT&T at

for the detariffing of equipment owned by the independents and currently tariffed at the state level in a subsequent action in this docket.)

21. It is our understanding that the amount of embedded CPE owned by the independent telephone companies and tariffed at the federal level comprises only a small portion of the total amount of embedded equipment owned by the independents. This CPE usually is associated with interstate private line services which the independents offer as connecting or concurring carriers. The CPE includes data sets, conference telephone sets, hand sets, and other equipment. We note, however, that it is difficult to acquire accurate information regarding the value of this federally-tariffed CPE and we are hopeful that parties filing comments in response to this Notice will include data which shed light on this question.

22. In our view, it may be the case that, even though the total amount of this federally-tariffed equipment may be small in comparison with the total amount of CPE owned by independent telephone companies, a significant portion of embedded CPE owned by particular independent companies may be tariffed at the federal level.[23] It thus becomes important to fashion a detariffing mechanism which works efficiently with respect to all embedded equipment remaining under federal tariffs and which also is sufficiently flexible to ensure that companies which have a substantial portion of their embedded CPE tariffed at the federal level are subject to detariffing rules and procedures which do not disadvantage their ratepayers or investors, while adequately balancing the interests of users of this CPE.

23. We propose to establish a detariffing plan under which federally-tariffed CPE owned by independent telephone companies would be detariffed on a "flash-cut" basis as of January 1, 1985. Under this approach, the equipment would be removed from regulated service at adjusted net book value[24] as of that date. In-place customers would be given the opportunity to purchase their equipment at any time during the two-year period following detariffing at sale prices which, in the aggregate, do not exceed the adjusted net book value of the equipment plus

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divestiture, which is tariffed at the federal level has been detariffed in accordance with the terms of the CPE Detariffing Order and is subject to the sale and lease requirements and other requirements established in the CPE Detariffing Order. It also should be noted that we indicated in the CPE Detariffing Order that we would address issues relating to federally-tariffed CPE owned by the independents in a subsequent action in this proceeding. *See* CPE Detariffing Order at para. 175. We do so here.

[23] This may be particularly true for small companies, such as Benton Ridge Telephone Company, Inter-Community Telephone Company, Clifton Forge-Waynesboro Telephone Company, and Peninsula Telephone and Telegraph Company, which have a significant amount of assets tariffed at the federal level. *See* FCC Tariff No. 260 at 253-58 (revisions effective Apr. 13, 1983 and Aug. 31, 1983).

[24] Adjustments to net book value would be made in accordance with the principles and rules adopted with respect to the Bell System in the CPE Detariffing Order.

reasonable transaction costs. Accounting requirements currently applicable to the offering of new CPE, by companies which do not establish separate subsidiaries for such offerings, also would apply to this detariffed CPE. We also seek comment regarding whether we should establish a price predictability program, based upon the requirements applicable to ATTIS established in the *CPE Detariffing Order*, under which lease rates charged by the independent companies would be subject to established ceilings. Existing contracts applicable to this detariffed equipment would remain in effect and would be enforceable by the independent company and the customer involved. The company would have to establish accounting mechanisms for the detariffed equipment which comply with the accounting requirements we will establish in this docket for state-tariffed embedded CPE owned by the independents. *See CPE Detariffing Order* at para. 175; *Notice*, 94 FCC 2d at 106-07.

24. Our goal, in formulating this proposal for the deregulation of independent companies' CPE tariffed at the federal level, is to effectuate the detariffing of this equipment as expeditiously as possible while also protecting the interests of ratepayers, in-place customers, and investors. We invite interested parties to comment on our proposal and to present and discuss other alternatives for the detariffing of this embedded equipment.

V. Regulatory Flexibility Act Certification

25. This Notice proposes rules and policies under which AT&T and the BOCs may provide new and embedded CPE to federal agencies as a part of end-to-end NSEP communications service. The objective of this proceeding is to establish a workable and durable framework for the provision of this CPE in a manner which accommodates national defense and emergency preparedness goals as well as the policies of *Second Computer Inquiry.* This Notice also proposes a framework for the deregulation of embedded CPE owned by independent telephone companies and currently tariffed at the federal level, with the objective of establishing requirements and procedures which accommodate the particular needs of these independent companies. The authority for this proposed rulemaking proceeding is contained in Sections 4(i), 4(j), 201-205, 213, 218, 220, and 403 of the Communications Act of 1934, 47 U.S.C. §§ 154(i), 154(j), 201-205, 213, 218, 220, 403.

26. We certify that small business entities, as defined for purposes of the Regulatory Flexibility Act, 5 U.S.C. §§ 602-612, would not be affected by this proposed rulemaking. The proposals made in this Notice would affect AT&T, the BOCs, and the independent telephone companies. We conclude that these entities are not small businesses within the meaning of the Regulatory Flexibility Act. This is the case regarding the independent companies because each of them is the dominant provider of

telephone service within its service area. *See Notice*, 94 FCC 2d at 114. We also conclude that there are no federal rules which would overlap, duplicate, or conflict with the action proposed in this Notice. We note that, even though the Regulatory Flexibility Act does not apply to independent telephone companies, our proposal regarding the detariffing of CPE owned by the independents and tariffed at the federal level complies with the spirit of that statute because it will have the effect of reducing administrative burdens faced by small independent telephone companies.

VI. Comment Filings; Ordering Clauses

27. For purposes of this non-restricted notice and comment rulemaking proceeding, members of the public are advised that *ex parte* contacts are permitted from the time the Commission adopts a notice of proposed rulemaking until the time a public notice is issued stating that a substantial disposition of the matter is to be considered in a forthcoming meeting or until a final order disposing of the matter is adopted by the Commission, whichever occurs earlier. In general, an *ex parte* presentation is any written or oral communication (other than formal oral arguments) between a person outside the Commission and a Commissioner or a member of the Commission's staff which addresses the merits of the proceeding.

28. Any person who submits a written *ex parte* presentation must serve a copy of that presentation on the Commission's Secretary for inclusion in the public file. Any person who makes an oral *ex parte* presentation addressing matters not fully covered in any previously-filed written comments for the proceeding must prepare a written summary of that presentation, and that written summary must be served on the Commission's Secretary for inclusion in the public file, with a copy to the Commission official receiving the oral presentation. Each *ex parte* presentation described above must state on its face that the Secretary has been served, and must also state by docket number the proceeding to which it relates. *See generally* Section 1.1231 of the Commission's Rules, 47 C.F.R. § 1.1231.

29. ACCORDINGLY, IT IS HEREBY ORDERED, That, pursuant to Sections 4(i), 4(j), 201-205, 213, 218, 220, and 403 of the Communications Act of 1934, 47 U.S.C. §§ 154(i), 154(j), 201-205, 213, 218, 220, 403, and pursuant to Section 553 of Title 5, United States Code, NOTICE IS HEREBY GIVEN of the proposed adoption of new or modified rules, in accordance with the discussion and delineation of issues in this Notice and on the basis of previous notices and filings in this proceeding.

30. IT IS FURTHER ORDERED, That all interested persons MAY FILE comments on the issues and proposals discussed in this Notice not later than July 20, 1984 and that replies may be filed not later than August 9, 1984. In accordance with the provisions of Section 1.419 of the

Commission's Rules, 47 C.F.R. § 1.419, an original and five copies of all statements, briefs, comments, or replies shall be filed with the Federal Communications Commission, Washington, D.C. 20554, and all such filings will be available for public inspection in the Docket Reference Room at the Commission's Washington, D.C., offices. In reaching its decision, the Commission may consider information and ideas not contained in filings, provided that such information is reduced to writing and placed in the public file, and provided that the fact of the Commission's reliance on any such information or ideas is noted in the *Order*.

31. IT IS FURTHER ORDERED, That the Secretary shall cause this Notice of Proposed Rulemaking to be published in the Federal Register.

32. IT IS FURTHER ORDERED, That the Secretary shall transmit a copy of this Notice to the Counsel for Advocacy of the Small Business Administration in accordance with the Regulatory Flexibility Act.

FEDERAL COMMUNICATIONS COMMISSION

WILLIAM J. TRICARICO, *Secretary*

Common Carrier
Customer Premises Equipment

Commission adopted order modifying the effective date for the application of the Computer II Rules to certain customer premises equipment used in association with designated national security communications systems.
—*Telecommunications Equipment*
CC Docket No. 81-893

FCC 84-239

BEFORE THE
FEDERAL COMMUNICATIONS COMMISSION
WASHINGTON, D.C. 20554

In the Matter of Procedures for Implementing the Detariffing of Customer Premises Equipment and Enhanced Services (Second Computer Inquiry)	CC Docket No. 81-893

ORDER

Adopted: May 24, 1984; Released: June 12, 1984

BY THE COMMISSION:

1. The principal purpose of this Order is to modify an effective date we established in another proceeding in this docket[1] for the application of *Second Computer Inquiry*[2] rules[3] to customer premises equipment (CPE) used in association with certain national security and emergency preparedness (NSEP) communications systems and circuits.

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[1] The effective date involved was established in CC Docket No. 81-893, Report and Order, FCC 83-551, 48 Fed. Reg. 57168 (released Dec. 15, 1983), *reconsideration petitions pending*, Public Notice No. 1445, 49 Fed. Reg. 5672 (released Feb. 6, 1984) (hereinafter CPE Detariffing Order).

[2] Amendment of Section 64.702 of the Commission's Rules and Regulations (Second Computer Inquiry), 77 FCC 2d 384, *reconsideration*, 84 FCC 2d 50 (1980), *further reconsideration*, 88 FCC 2d 512 (1981), *aff'd sub nom.* Computer & Communications Industry Ass'n v. FCC, 693 F.2d 198 (D.C. Cir. 1982), *cert. denied sub nom.* Louisiana Pub. Serv. Comm'n v. FCC, 103 S.Ct. 2109 (1983).

[3] Section 64.702 of the Commission's Rules and Regulations, 47 C.F.R. § 64.702 (hereinafter Computer II Rules).

2. In the *CPE Detariffing Order* we provided that all embedded CPE furnished by the American Telephone and Telegraph Company (AT&T) for use in association with NSEP communications systems would have to be provided in accordance with the Computer II Rules. This ruling specifically applied to NSEP systems and circuits identified by Federal Executive Agencies (FEA) as especially critical to the government's NSEP communications needs.[4] FEA had requested that these systems and circuits remain under tariff and not be transferred to AT&T Information Systems (AT&T-IS) at the time of the divestiture of the Bell System along with other CPE required to be transferred by the *CPE Detariffing Order*. We provided, however, that the effective date of these requirements would be delayed to June 1, 1984, "thus affording interested parties an opportunity to petition the Commission for a waiver of the application of the requirements ... to the special systems and circuits identified by FEA in its pleadings." *CPE Detariffing Order* at para. 172 (footnote omitted). We also indicated that NSEP-related embedded CPE received by AT&T from the Bell Operating Companies on January 1, 1984, pursuant to the divestiture should "be placed in regulated service by AT&T and tariffed at the federal level." *Id.* at para. 172 n. 148.

3. In mid-December of last year AT&T submitted a waiver request seeking permission to transfer all embedded CPE associated with the designated NSEP systems to AT&T-IS on January 1.[5] The Common Carrier Bureau granted this waiver request[6] but also made clear that its action was of an interim nature and that it intended to recommend that we issue a notice of proposed rulemaking to propose permanent mechanisms for accommodating the NSEP communications needs of federal agencies.[7] We since have adopted such a notice.[8] The effect of the *Bureau Waiver Order* was to permit all embedded CPE relating to the systems identified by FEA, and all embedded CPE associated with emergency communica-

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[4] For a listing of these systems and circuits, see CPE Detariffing Order at para. 171 n.146.

[5] AT&T Petition, ENF 83-13 (filed Dec. 14, 1983).

[6] CC Docket No. 81-893, Order, Mimeo No. 1705 (released Jan. 10, 1984) (hereinafter Bureau Waiver Order). The following waivers resulted from the action taken in the Bureau Waiver Order: (1) Embedded CPE associated with the systems and circuits designated by FEA was permitted to be transferred to AT&T-IS as of January 1, 1984. (2) AT&T Communications (AT&T-C) was permitted to be responsible for maintenance of this embedded CPE as part of its end-to-end service responsibilities. (3) AT&T-C was given authority to obtain and service new CPE for use in connection with the designated systems and circuits. (4) AT&T-C was authorized to continue serving as a single point of contact for the provision of emergency communications service, including the provision of associated CPE. These waivers were scheduled to expire on May 31, 1984. *See* Bureau Waiver Order at para. 21.

[7] *See id.* at para. 1 n.4.

[8] CC Docket No. 81-893, Second Further Notice of Proposed Rulemaking, FCC 84-238 (adopted May 24, 1984).

tions systems, to be detariffed and transferred to AT&T-IS as of January 1, 1984. Under the Bureau action, title to new and embedded CPE covered by the waiver could reside in AT&T-IS, AT&T Communications (AT&T-C), or the federal agency involved, and AT&T-C retains end-to-end responsibility for maintenance of the CPE.

4. The current situation, then, is that waivers permitting AT&T-C to supply new and embedded CPE for the special NSEP systems designated by FEA remain in effect; that these waivers are due to expire as of June 1, 1984, on which date the Computer II Rules will apply to any further provision of this CPE pursuant to our decision in the *CPE Detariffing Order*; and that we have just begun a further rulemaking in this docket to effect permanent arrangements for the provision of this equipment. It is evident, in these circumstances, that the June 1 deadline must be modified to give parties sufficient time to comment on our proposed rulemaking and to permit us to take action in that rulemaking proceeding.

5. We have concluded that the best means for minimizing disruptions in the servicing of these critical NSEP systems pending our taking such action is to continue further the *status quo* during this interim period. We therefore shall extend the effective date of the requirements established in the *CPE Detariffing Order* from June 1 to January 1, 1985. Also, we shall extend the termination date of the waivers established in the *Bureau Waiver Order* to December 31, 1984. Both of these dates are subject to further order in this docket. These extensions will preserve the *status quo* until we have completed further proceedings in this docket. We anticipate, however, that we shall be able to complete our final action with regard to the proposed rulemaking well before the end of this year. We note that this extension applies only to the critical NSEP systems identified by FEA, as well as the provision of CPE in emergency situations.[9]

6. Accordingly, IT IS ORDERED That, pursuant to Sections 4(i), 4(j), and 416(b) of the Communications Act of 1934, 47 U.S.C. §§ 154(i), 154(j), and 416(b), the effective date established in paragraph 224 of the *CPE Detariffing Order* IS MODIFIED to provide that the requirements of Part XI.B. of such *Order*, relating to CPE associated with NSEP communications systems, shall take effect on January 1, 1985.

7. IT IS FURTHER ORDERED, That the termination date established in paragraph 21 of the *Bureau Waiver Order* IS MODIFIED to provide that the waivers established in such *Order* shall remain in effect until December 31, 1984.

8. IT IS FURTHER ORDERED, That the provisions of this Order shall take effect on the date following the date of the adoption of this

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[9] For a description of the covered emergency situations, see ENF 83-13, Memorandum Opinion and Order, FCC 83-143 (released Apr. 12, 1983) at para. 16.

Order. Because this Order is procedural in nature and grants an exemption from the application of certain provisions of the Computer II Rules, the effective date requirements of the Administrative Procedure Act do not apply. *See* 5 U.S.C. §§ 553(d), 553(d)(1). Further, since the actions taken in this Order are procedural in nature, the notice and comment requirements of the Administrative Procedure Act do not apply. *See* 5 U.S.C. § 553(b)(A). In addition, since these actions merely stay the effective date of certain requirements under the Computer II Rules for a temporary period and are unlikely to engender any controversy, we find good cause for the conclusion that affording prior notice and opportunity for comment is not necessary. *See* 5 U.S.C. § 553(b)(B).

9. IT IS FURTHER ORDERED, That the Secretary of the Commission shall cause a copy of this Order to be published in the Federal Register.

FEDERAL COMMUNICATIONS COMMISSION
WILLIAM J. TRICARICO, *Secretary*

Bandwidth
Notice of Inquiry
Rule Making, Notice of Proposed

Further Notice of Inquiry and Notice of Proposed Rule Making adopted regarding authorization of spread spectrum and other wideband emissions not presently provided for in FCC Rules and Regulations.
—*Wideband Modulation Systems*
Gen. Docket No. 81-413

FCC 84-169

BEFORE THE

FEDERAL COMMUNICATIONS COMMISSION

WASHINGTON, D.C. 20554

In the Matter of Authorization of spread spectrum and other wideband emissions not presently provided for in the FCC Rules and Regulations.	Gen Docket No. 81-413

FURTHER NOTICE OF INQUIRY AND NOTICE OF PROPOSED RULEMAKING

Adopted: April 26, 1984; Released: May 21, 1984

BY THE COMMISSION:

Introduction and Background

1. On June 30, 1981, the Commission adopted a Notice of Inquiry ("Inquiry") (46 Fed. Reg. 51259; 87 FCC 2d 876), for the authorization of certain types of wideband modulation systems. The Inquiry is unusual in the way that it deals with a new technology. In the past, the Commission has usually authorized new technologies only in response to petitions from industry. However in the case of spread spectrum, the Commission initiated the Inquiry on its own, since its current Rules implicitly ban such emissions in most cases, and this prohibition may have discouraged research and development of civilian spread spectrum systems. As the next step in this proceeding, we are proposing in this Notice of Proposed Rulemaking rules that would authorize the use of spread spectrum under conditions that prevent harmful interference to other authorized users of the spectrum. We anticipate that this authorization will stimulate innova-

tion in this technology, while meeting our statutory goal of controlling interference. We are issuing a Further Notice of Inquiry to solicit comments that will enable us to develop the appropriate test procedures for spread spectrum devices.

2. Spread spectrum is a term applied to communications systems that spread radio frequency energy over a wide bandwidth by means of an auxiliary spreading code. The spreading of the bandwidth can be accomplished in many different ways and the systems are usually classified by the type of spreading technique which they employ. They are commonly referred to as: direct sequence (or pseudonoise), frequency hopping, time hopping, pulsed FM (or chirp) and hybrid systems. (These terms are defined in Section 15.4 of the proposed rules in Appendix B.) The spreading or dilution of the energy in spread spectrum systems over a wide bandwidth results in several possible advantages: short range interference-free overlays on other emissions, resistance to interference from other emissions, and low detectability. While we do not anticipate that spread spectrum will replace other types of modulations, the unique characteristics of spread spectrum offer important options for the communications system designer.

3. Although most spread spectrum systems are presently used in government applications, there are some non-government systems also in operation. In some instances, the existing Rules and Regulations allow such operation, in other cases, permission to operate has been obtained through special authorization. Under Section 90.209(b) and under footnote US217 in Section 2.106 of the Rules and Regulations, spread spectrum systems for radiolocation purposes can be licensed for operation in the 420-435 MHz band. Also, special authorization was given to the Amateur Radio Research and Development Corporation to conduct spread spectrum tests in the 50.0-54.0, 144-148 and 220-225 MHz bands. Under Part 25 of the Rules and Regulations which deals with Satellite Communications, licensees are only required to meet certain power attenuation standards and are not limited in operation by any specific emission designators. This, plus the wide bandwidth available in the 4.4-4.7 GHz band, has enabled Equatorial Communications Company to use spread spectrum in its satellite communications.[1]

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[1] On April 14, 1980, Equatorial was granted permission to provide a 9600 bit per second data distribution service using spread spectrum transmissions. The signals were broadcast from a large earth station in Mountain View, California and were rebroadcast from a satellite to customers which received them with 0.6 meter (2 foot) diameter receiving antennas. Over 6000 of these systems were sold in 1983. Equatorial's filings with the Commission concerning this system have been given the reference file numbers W-P-C-3078 and W-P-C-3476. On March 5, 1984, Equatorial was granted permission to use spread spectrum in a 1200 bit per second satellite uplink using a 1.2 meter (4 foot) transmitting antenna. Equatorial's filings with the Commission for this system have been

4. These are some of the services in which spread spectrum systems are now operating in accordance with the current FCC Rules and Regulations. In the Inquiry, we sought to determine whether it would be in the public interest to authorize spread spectrum in an additional number of services and over a broader range of frequencies. There is some interest in spread spectrum communications because these systems offer certain advantages over conventional communications systems. For example, since the spreading functions for these systems are not uniquely specified, different codes can be used to obtain selective addressing as well as message privacy. As a result, code-division multiple access systems can be implemented using spread spectrum techniques. Also, the low spectral density needed for spread spectrum communications systems, as well as the ability of some of these systems to process signals that are buried far into the noise, offer a potential for shared spectrum use with existing systems on a non interference basis. Finally, spread spectrum systems could be useful in applications to control multipath interference.

5. In the Inquiry, we also requested comments on the interference potential of spread spectrum systems to existing services, their frequency allocations, and the measurement of their emissions for monitoring as well as equipment authorization purposes. Information was also solicited concerning what services might be authorized, what transmitted power should be allowed, how can the transmissions be measured, should spectrum overlay of existing systems be allowed and what potential exists for interference with existing communications.

6. We also brought to the public's attention a study made by the MITRE Corporation on the potential use of spread spectrum techniques in non-government applications ("Scales Report") and a second study made by the IIT Research Institute (IITRI) on the analysis of interference caused by spread spectrum signals ("Newhouse Report").[2] Comments

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given the reference file numbers 962-DSE-P/L-83 and 963/964/965-DSE-ML-83. In both of these cases, the data is spread to 5 MHz using direct sequence pseudonoise modulation. This spreading is essential for these applications in order to allow the use of small antennas and prevent interference to other satellites and terrestrial users.

[2] Walter C. Scales, "Potential Use of Spread Spectrum Techniques in Non-Government Applications", the MITRE Corporation, PB 81-165284, December 1980.

Paul Newhouse, "Procedures for Analyzing Interference Caused by Spread-Spectrum Signals", IIT Research Institute, Report #ESD-TR-77-003, AD-A056911, February 1978.

Copies of these reports may be purchased from the National Technical Information Service, Springfield, Va., 22161, Tel. (703)-487-4650. Scales and Newhouse have presented tutorials at the FCC on their reports. These presentations are useful background information for those preparing comments in this area and copies of videotapes are available from the Prism Corporation, 4545 42nd St., NW, Suite 109, Washington, D.C., 20016, Attn: Donna Edwards, Tel: (202)-686-8250.

were invited on the appropriateness of using the theoretical models developed in these reports as a basis for rulemaking.

Discussion of Comments and Reply Comments

7. Sixteen comments and twelve reply comments were filed in response to the Inquiry. A list of those filing comments is contained in Appendix A.* The comments received were primarily in reply to the questions raised in the Inquiry and no new matters or issues of significance were raised. Although several questions in the Inquiry specifically addressed the use of spread spectrum in police applications, there were no responses to the Inquiry from police agencies or associations or from any public safety group. The replies to the Inquiry were primarily from manufacturers, individuals and broadcast groups.

8. In general, most of the replies were favorable to the overall concept of spread spectrum communications. It was felt that there are many useful communications applications which could be achieved with spread spectrum techniques that could not be satisfactorily developed with any other technology. However, many had reservations about the particular implementation of spread spectrum systems and expressed concern over the potential for interference with existing communications systems. Because the technology is so new, many urged the Commission to proceed slowly with its implementation until we have had successful operating experience with these systems, including the identification and measurement of spread spectrum signals and their interference potential. There was particular concern among some parties that regular communications might be interrupted and the Commission might not be able to detect the source of the interference.

9. Various parties as well as the Commission suggested many civilian applications of spread spectrum techniques. These were:

a. wireless data terminals
b. wireless microphones
c. cordless telephones
d. wireless intercoms
e. remote area telephone service
f. radionavigation and ranging
g. intrusion alarms
h. police radar
i. police tracking and trailing devices
j. a wide range of telemetry applications
k. remote control applications both domestic and industrial

Although many of these applications duplicate existing services, there are some instances where spread spectrum systems could provide a superior and less expensive alternative to the systems presently in use. Lucasfilm Ltd., which makes extensive use of wireless microphones, made this observation in their comments:

> [W]e would like to offer the Commission comment from a potential user for whom spread-spectrum techniques may provide the only solution to a standing problem. . . . special circumstances surround the use of FCC-authorized "radio microphones" in the production of theatrical motion pictures. It is the experience of every user with whom I have compared notes, that narrow-band FM radio microphones provide unreliable communications. Multiple transmission paths cause frequent complete drop-outs of signal, with the resultant loss of a great deal of time and money. . . . One need only listen to the tapes from the locations of C3PO of the next "Star Wars" film with its nearly continuous dropouts to realize the potential importance of spread spectrum techniques.
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> [Lucasfilm Ltd., Comments, June 28, 1982; pages 1 and 2]

10. Regarding the use of spread spectrum techniques in police communications, only GE and the IEEE Communications Society Subcommittee commented on whether non-jammable police radars could be developed using spread spectrum. Both thought that this type of spread spectrum implementation was not needed at the present time. Although no formal responses were received on this issue, we did receive an informal inquiry from Transcrypt/International Inc. concerning the use of spread spectrum in police trailing applications.[3]

11. Concerning the parameters that characterize spread spectrum emissions and the methods for their detection and measurement, there was much broad comment but very little concrete detail. It was generally felt that each type of wideband modulation system has its own unique characteristics, and that different measurement techniques would be needed for each of the different spread spectrum systems. Some thought that the average power per unit of bandwidth would be an adequate measure of the spectral emissions and that this measurement could be made on a spectrum analyzer. However, no specific procedures were given for making these measurements, and no useful analysis was provided of the levels and character of the emissions to be expected at various distances from a spread spectrum transmitter. It was suggested that the American National Standards Committee C63 on Radio-Electrical Coordination might be of some help to the Commission in setting up adequate monitoring and measurement standards.

12. Although few parties commented on the Newhouse and Scales theoretical models, those who did felt that the models were not sufficient-

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[3] Transcrypt/International Inc. has developed frequency hopping transmitters which they have been demonstrating to law enforcement agencies for possible use in the police radio service.

ly accurate or complete to be used as a basis for frequency allocation or to predict the interference to conventional systems from spread spectrum signals. They felt that both Newhouse and Scales have greatly expanded our knowledge in this area; but, that for any theoretical model to be accepted as a standard, it would have to be first thoroughly checked against experimental data over a wide range of test conditions.

13. The topic that caused the most concern was the potential interference that spread spectrum systems might cause to existing services. Some concern was also expressed about the possibility of spread spectrum systems interfering with each other. GE felt that the interference problems presented by spread spectrum systems may be so great as to preclude their successful implementation in the land mobile services. Because of this, they thought that spread spectrum systems should not be authorized in mobile services but should be confined to the FIXED services.

14. Both GE and RCA objected to authorizing spread spectrum systems in the Industrial, Scientific and Medical (ISM) bands because m any Part 15, low power consumer devices, such as home security devices and video disc systems, have already been authorized to operate in some of the bands. Not only were they concerned that spread spectrum systems operating in the ISM bands might cause interference to these devices, they also feared that any interference could lead to restrictions on the ISM bands for all Part 15 devices. Although RCA's objections were limited to the ISM bands below 1000 MHz, GE did not qualify its objections. All other parties responding to this issue felt that spread spectrum systems should be authorized in the ISM bands.

15. With the exception of NTIA, all of the respondents who specifically addressed the issue were against the overlay of spread spectrum systems upon existing services. However, these respondents made no explicit objection to the use of spread spectrum in low-powered, limited range applications. Indeed, most of the suggested applications for spread spectrum implementation were for systems of this type. Nevertheless, there was considerable concern about the interference to existing services from spread spectrum systems, regardless of the power levels involved. It was hoped that the interference could be minimized or completely eliminated, through the establishment of sufficient standards for the measurement and monitoring of spread spectrum emissions. In their comments, NTIA has pointed out that there are military and government spread spectrum systems which are presently operating in the frequency bands of other services, and are apparently causing no harmful interference to these services. However, they also state that in order to prevent interference to the overlayed services, some constraints and limitations had to be placed upon the operation of the spread spectrum systems.

16. It appears that most low power communication devices, currently authorized under Part 15 of our Rules and Regulations, could be considered as potential candidates for spread spectrum. As the staff at the Commission's Laurel Laboratory facility has considerable experience in measuring the emissions from Part 15 devices, the authorization of spread spectrum devices under this section of the Rules is attractive, since the expertise of the Laboratory staff could be drawn upon in establishing measurement standards for these devices and monitoring their emissions. However, most of the measurements at the Laboratory have been made on narrowband transmitting systems. Consequently, we will also have to rely on comments and help from outside the Commission in developing meaningful measurement standards for broadband systems. We would like to draw upon industry's knowledge and resources in this area and invite their comments on the development of such broadband measurement standards.

17. The authorization of spread spectrum systems under Part 15 of the Rules is attractive from another point of view. With the exception of frequency hopping systems, spread spectrum devices require continuous bands of spectrum in which to operate. But since Part 15 low power communication devices are authorized to operate on all frequencies above 70 MHz, subject to certain restrictions, spread spectrum systems authorized under this Part of the Rules would have access to this broad continuous area of spectrum. This essentially unlimited amount of spectrum is therefore important to spread spectrum use. Also, authorization of spread spectrum devices under Part 15 would allow considerable experimentation to be done on devices such as wireless microphones and wireless data terminals without Commission regulations restricting their development. At the same time, the Commission might be spared the immediate need to allocate additional spectrum space for these services and for other requested services such as cordless telephones. Many specific problem areas, such as those pointed out by Lucasfilm Ltd., could perhaps also be eliminated by Part 15 spread spectrum authorization. The use of spread spectrum in existing types of Part 15 devices, such as cordless phones and garage door openers, might increase their interference rejection capability while decreasing their potential interference to other systems and improving their privacy.

18. The authorization of spread spectrum systems under Part 15 of the Rules and Regulations would be unrestrictive and unregulatory in nature, since devices operating under Part 15 do not have to be licensed and users do not face eligibility requirements, content regulation, or coordination requirements. This would allow the forces of the marketplace to drive the implementation of this new technology, unhampered by

regulations other than those needed to prevent harmful interference to licensed systems. Because of this, we are proposing to allow spread spectrum usage, under Part 15 of our Rules, for all low power communication devices which transmit or receive information on frequencies on or above 70 MHz. For frequency hopping, time hopping and pulsed FM systems, the levels of emissions which are being proposed are comparable with those presently authorized in the Rules for low power communication devices. For direct sequence systems, the levels of emission have been chosen so that the signals will not affect passable television quality (TASO grade 3) at a distance of 10 meters from the transmitter. Television receivers, because of their wide channel bandwidth, are generally more sensitive to interference than narrowband receiving systems. Hence, the emission limits which have been chosen to protect the television services, should be sufficient to protect narrowband systems from interference also. Emergency and radio astronomy bands have been protected in the proposed rules by placing stringent limits on the radiation which can be emitted in these bands. (See paragraph 15.126(c) of the proposed rules in Appendix B.) These constraints should minimize the probability of harmful interference to any of the existing services.

19. Spread spectrum devices, authorized under the rules proposed in this NPRM, will be required to be certified as a prerequisite to marketing. The Rules for the certification of Part 15 low power communication devices are given in the Rules and Regulations under Part 15, Subpart B. The Commission has the discretionary authority to call in sample devices for testing as part of the certification process. As we have done in the past with cordless telephones, CB radios, home computers and other devices and in response to the comments received in this proceeding, we expect to engage in a thorough sampling program until we are confident that the manufacturers have gained sufficient knowledge and skill in building them, so that they pose no potential interference problems.

20. The present Rules specify power and bandwidth limits for all low power communication devices. They also specify that, for devices authorized under the general provisions of Section 15.122, periodic operation in the bands 41.66-40.70 MHz and above 70 MHz, the duration of each transmission shall not be greater than one second and the silent period between transmissions shall be at least 30 times the transmission duration but in no case less than 10 seconds. Although, we are proposing to authorize spread spectrum systems under a new, separate section of the Part 15 Rules, Section 15.126, the new proposed rules were modeled after those of Section 15.122 and were made consistent with the rules and requirements of that section to the greatest extent possible. Nevertheless, in order to accommodate spread spectrum systems under this Section of the Rules, some of these requirements have to be amended.

21. As we have indicated above, we are proposing to allow spread spectrum systems to operate on any range of frequencies above 70 MHz without any restrictions on their occupied bandwidths. And since a requirement of a 10 second minimum time between transmissions for spread spectrum devices could severely hamper the development of this technology, we are proposing to eliminate this restriction for these devices. However, spread spectrum systems would be subject to power and spectral occupancy limits that are comparable with those presently in the Rules, and for frequency hopping, time hopping and pulsed FM systems, a modified form of the 1/30 transmission on/off time requirement would apply also.

22. Time hopping and pulsed FM, spread spectrum systems can meet the present power and transmitting time on/off limits, if the measured field strength of their emissions on any frequency is no greater than those presently specified in this Part of the Rules, and if their duty cycles are less than 3.3%. Frequency hopping systems will also meet these requirements, if they are subject to this same field strength criteria, if 30 or more hopping frequencies are used, and if the transmission time on any one frequency is less than 1 second. However, because frequency hopping, time hopping and pulsed FM systems could cause considerable interference to television reception if they were allowed to indiscriminately operate within the television bands, restrictions have been placed upon the use of the television bands by these systems. If these systems operate on frequencies which fall within the television bands, it is proposed that they either be designed so that they do not have a total time of occupancy on any single television channel that is greater than one second out of every 30 seconds, or that they be provided with a switch or switches, that will enable the equipment to be operated on channels which are unused in that area. A television channel will be considered as used in an area, if the spread spectrum transmitter under consideration will produce a field, within the grade A contour of the television station using that channel, which is greater than 10 microvolts per meter.

23. With regards to interference, direct sequence systems pose a different type of problem since they require a continuous occupancy of the frequency bands in which they are operating. Juroshek has shown that the interference to television by direct sequence signals is of the same magnitude as that from narrowband signals of equivalent power.[4] But for narrowband interference, a signal to interference ratio of 50 dB will yield a television picture of passable quality,[4,5] At the grade A

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[4] John R. Juroshek, "A Preliminary Estimate of the Effects of Spread-Spectrum Interference on TV", NTIA Report 78-6, June 1978.

[5] CCIR Report 523, 1974, "System Models for the Evaluation of Interference", International Telecommunications Union, Geneva.

contour, most locations can tolerate a wideband or narrowband interference signal of approximately 10 microvolts per meter. Thus, the proposed maximum emission level of 33 microvolts per meter, measured at 3 meters, corresponds to no significant interference to most TV receivers that are 10 meters away from the emitter at the grade A contour, or 15-100 meters away (depending on channel number) at the grade B contour. It should be noted that this level of radiation is far below that presently allowed for Part 15, low power communication devices. The proposed changes to Part 15 of the Rules and Regulations for spread spectrum devices are presented in Appendix B.

24. The limits on the effective radiated power from spread spectrum devices, operating on frequencies on or above 70 MHz, are presented in Section 15.126(a) (cf. Appendix B). It should be noted that no fixed limits are being placed on the radiated power of spread spectrum devices operating in the 902-928 MHz, 2400-2483.5 MHz and 5725-5875 MHz ISM bands.[6] In these bands, all devices are allowed sufficient power for satisfactory operation, providing they do not cause harmful interference to other users of the bands, or produce unacceptable levels of radiated emissions outside the bands. The proposed rules would authorize spread spectrum systems to share these bands on a secondary non-interference basis with the primary users.[7] The majority of the comments favored allowing spread spectrum systems to operate in these bands. Also, in the previously cited report, "Potential Use of Spread Spectrum Techniques in Non-Government Applications", Scales recommended that the Commission consider the implementation of spread spectrum systems in the ISM bands. Although GE and RCA have presented arguments against the shared usage of the ISM bands, we do not feel that they outweigh the considerable advantages to be gained from sharing these bands with spread spectrum systems. If spread spectrum systems can contend with the heavy interference from the other users of these bands, then these

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[6] RM-4426, a petition for rulemaking filed by Geostar Corporation for a radiolocation satellite service, requested use of the 2483.5-2500 MHz band. The availability of this band for spread spectrum communications systems will depend on the final disposition of the Geostar petition.

[7] NTIA has recently studied the current and potential electromagnetic usage of these three bands. Their findings are contained in the following reports.

Bohdan Bulawka, "Spectrum Resource Assessment in the 902-928 MHz Band", NTIA Report 80-46, September 1980.

Robert T. Watson, "Spectrum Resource Assessment in the 2300-2450 MHz Band", NTIA Report 81-78, September 1981.

William B. Grant, John C. Carroll and Charles J. Chilton, "Spectrum Resource Assessment in the 5650-5925 MHz Band", NTIA Report 83-115, January 1983.

bands could offer an excellent proving ground for high power spread spectrum applications. Comments are requested on this issue.

25. In response to Transcrypt/International's inquiry concerning the use of spread spectrum in police communications, we are proposing to authorize frequency hopping and direct sequence systems to operate on a limited basis on certain frequencies in the Public Safety Radio Services. This authorization would be only for Police Departments' use of Public Safety spectrum for the purpose of communications in connection with physical surveillance, stakeouts, raids and other such activities and would be on a secondary basis to operations of licensees regularly authorized on these frequencies. Approval of the area frequency coordinator must be obtained prior to operation. The proposed changes to Part 90 of the Rules and Regulations to accomplish this are presented in Appendix B.

26. Because criminals have become increasingly more sophisticated in the means which they use to monitor police communications and detect surveillances, law enforcement officers must use increasingly sophisticated methods to guard their communications. Since spread spectrum transmissions are not readily detectable by criminals monitoring the air waves and are difficult to jam, this form of communications can become an extremely valuable tool for police. Federal law enforcement agencies, operating radio systems under 47 USC 305, have been authorized on a case by case basis by the National Telecommunications and Information Administration to use spread spectrum in their operations. This proposed rule gives state and local law enforcement agencies this same, important capability.

27. Under the proposed changes to Part 90 of the Rules, frequency hopping systems would be allowed to operate on any of the frequencies which are presently available to the Police Radio Service and listed in Section 90.19(d) of the Rules. The power limit specified for the users of these frequencies is 2 watts. Hence, frequency hopping systems, which are operating on these frequencies, are not expected to cause harmful interference to other users, if their maximum output power is kept below 2 watts. However, if the hop rate of these systems is greater than 10 hops per second and more than 10 hopping frequencies are used, then we feel that a maximum output power of 15 watts can be allowed and still not cause objectionable interference to the other users, since the time of continuous occupancy of any single frequency, by the frequency hopping system, will be less than one tenth of a second. Also, direct sequence spread spectrum systems will be allowed to operate in the 37.01-37.43, 39-40, 44.61-46.6, 154.6375-156.250 and 158.715-159.48 MHz Public Safety bands, if their maximum integrated output power is limited to 10 mW per kHz. The level of this signal is about one-tenth of that allowed for the

other users of these bands and therefore the potential for interference is small.

28. We recognize that there is a potential for increased interference in allowing spread spectrum systems to share spectrum with conventional radio services. The proposed operation of spread spectrum devices under Part 15 of the Rules on frequencies above 70 MHz could, depending upon power levels allowed and other technical details, potentially affect Private Radio, Mass Media, and Common Carrier Services. We are particularly determined to avoid harmful interference to the Public Safety Radio Services from devices operating under both Part 15 and Part 90 of the Commission's Rules. Communications in the public safety services are directly related to the safety of life and property. As such, harmful interference could have a direct and adverse effect on the public. Public safety licensees operate radio systems in the 30 MHz, 150 MHz, 450 MHz, 470 MHz, and 800 MHz private land mobile bands. We have attempted to minimize this potential for interference by choosing conservative technical standards and, in the case of operation under Part 90, by requiring frequency coordination. We request comments on the ability of our proposed rules to ensure the integrity of public safety communications as well as other services.

29. Although automatic identifiers for spread spectrum systems are not being considered in this proceeding, we may in the future have to consider some form of transmission identifier to assist us in identifying and locating units which may be causing interference. Hence, comments are sought on the feasibility of using such identifiers and the particular form that they might take. (As an example, Del Norte Technology Inc. uses a blanking technique to superimpose Morse code on their emissions with the identifiers DN and DNT for their spread spectrum radiolocation devices.)[8] It should be noted that there could be some difficulties with using these identifiers. For instance, the transmitted designator could be so strong that it could cause interference even when the signal it is identifying is not causing any, and on the other hand, it could be so weak that it might remain undetected while the signal which it is identifying is causing interference. We are requesting comments as to whether these difficulties pose real hindrances to the use of transmitter designators with spread spectrum communications systems. If not, what form should the designator take and what power levels should be specified?

30. We may wish to consider spread spectrum transmissions that are carried by line conducted carrier current. There are many practical

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[8] 47 Fed. Reg. 34415, "Revisions of Parts 2 and 90 of the Commission's Rules and Regulations to permit inland assignment of frequencies in the 420-450 MHz band for non-Government radiolocation", Second Report and Order, General Docket No. 80-135, Paragraph 14.

applications of spread spectrum systems which could be realized if the transmissions could be carried by this means. At the present time, line conducted transmissions are only allowed in restricted instances because of the danger of feeding interference back into the mains. Anticipating a possible future concern of the Commission in this area, we are requesting comments on the conditions under which this method of transmission would be practical for spread spectrum systems in domestic, business and industrial environments. Also, what power levels and frequency ranges should be specified and what range of transmission frequencies should be allowed? What precautions should be taken so that excessive spread spectrum signal strength does not feed back into the mains?

31. One area in which we expect significant growth for spread spectrum systems is in its use in wireless data terminals. The Commission has already received several inquiries concerning this use for spread spectrum and experimental licenses for such devices have already been issued.[9] To help us anticipate industry's needs in this area, we are requesting comments as to whether the Rules, proposed here, are sufficient to allow spread spectrum wireless data terminals to operate efficiently in domestic, business and industrial environments. Also, in order to further promote this promising application, should we consider authorizing two classes of wireless data terminals under Part 15 as is presently done with computing devices? Alternatively, should such data terminals require a license if they exceed a certain emission limit? If so, what power and emission limits should be imposed? On the other hand, if in order to operate efficiently, these terminals would require bands of their own, where should they be located and what should the power limits be?

Notice of Inquiry

32. For equipment authorization and monitoring purposes, standards will have to be established for the measurement of spread spectrum emissions. However, because of the unique problems associated with the detection and measurement of these signals, we are unable at this time to furnish the appropriate procedures for their measurement. These will be released with the final Report and Order. To develop these procedures, we will need considerable assistance from business and industry to help solve the many difficult problems associated with these types of measurements. Some areas of concern about which we seek comments are:

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[9] Hewlett-Packard has been issued experimental licenses under Part 5 of the Rules to develop and operate direct sequence, spread spectrum wireless data terminals in the 2450-2550 MHz band. All of the licensed facilities are in California. Although the need to broadcast call signs has been waived by the Commission in this instance, the identifying call signs associated with these facilities are: KM2XPS, KM2XPV, KM2XPW, KM2XPX AND KM2XPY.

1. With the power levels proposed for Part 15, spread spectrum transmitters, is it feasible, or even possible with our present measurement techniques, to measure the field strength of emissions from this equipment at outdoor 3 meter test sites? If so, what antennas would be the most suitable for making the measurements? (It should be kept in mind that, since most antennas become very inefficient at high frequencies, i.e., their antenna factors become very large, it may not be possible to detect and accurately measure low powered, spread spectrum signals, at these test sites. Also, remember that, since it is proposed that spread spectrum operations be allowed on all frequencies above 70 MHz, several different antennas will be needed to span the range over which these systems will be operating.)
   Would the same measurement procedures suffice if field strength levels listed in Section 15.126(a) were to be decreased by 20 dB? What would the test procedures be in this case?

2. Measurements could perhaps be made more easily and accurately indoors, by measuring the output signal from the devices at a point just prior to any passive antenna tuning network that is used. What should be measured here: the total power of the unmodulated carrier, the power density over a specified frequency range or some other parameter? How can these measurements be coordinated with the field strengths specified in Section 15.126(a) of the proposed Rules (cf. Appendix B)? Will there be any difficulty in adjusting the data for transmission line loss and antenna gain?

3. Perhaps all of the equipment authorization measurements will have to be made indoors on a test bench. For accuracy and repeatability in making these measurements, we may require that the manufacturer install, on devices that are submitted for test, some type of low loss RF connector at a point on the device just prior to any passive antenna tuning network that is used. What type of a connector should be specified? (If possible, the generic name of the connector should be used rather than the brand name.)
4. How should the connector be coupled to the network to prevent it from loading down the device? What impedence matching standards should be specified to prevent either the connector or the measuring equipment, which is to be attached to the connector, from interfering with the operation of the device? (Remember, that these connectors, if required, will only be mounted on the piece of communications equipment which the manufacturer submits for testing. They will not be allowed on devices which are produced for the general public. Hence, the addition of the connector to the device should not substantially change its operating characteristics.)
5. What equipment should be used to make the measurements? Are both spectrum analyzers and field intensity meters adequate for making these measurements or would the noise floors of these instruments mask the signals which are being measured?

6. What IF bandwidth should be used? Although the specification of a 1 MHz IF bandwidth is appealing and is easily attainable on most instruments, it is perhaps not adequate for measuring spread spectrum signals because their bandwidth is so large. The tradeoff for reduced IF bandwidth is the speed of making the measurements and it would take 10 times longer to scan a given spectrum with an instrument with a 1 MHz IF bandwidth as it would with one that had a 10 MHz bandwidth. And for signals which may span several GHz, even a 10 MHz IF bandwidth may not be adequate.

7. What scanning speed should be used to ensure that a representative sample of the spread spectrum transmission is actually being measured? Would a scanning speed that is one twentieth that of the spreading code be sufficient?

8. To speed up the measurements, what equipment could be used that will provide a greater IF bandwidth and yet would not sacrifice the accuracy of the measurements?

9. How can the test procedures for both indoor and outdoor measurements be automated?

10. What test data should we ask the manufacturers to supply for equipment authorization purposes?

We will give consideration to the information, which is submitted, in setting up our internal measurement standards, which we will make available to the public in a technical note or report.

How to File Comments

33. In accordance with the procedures set forth in Section 1.415 of the Commission's Rules, interested persons may file comments on or before September 14, 1984 and reply comments on or before October 12, 1984. All relevant and timely comments will be considered by the Commission before final action is taken in this proceeding. In reaching its decision, the Commission may take into consideration information and ideas not contained in the comments, providing that such information, or a writing indicating the nature and source of such information, is placed in the public file, and provided that the fact of the Commission's reliance on such information is noted in the Report and Order.

34. In accordance with the provisions of Section 1.419 of the Commission's Rules, formal participants shall file an original and 5 copies of their comments and other materials. Participants wishing each Commissioner to have a copy of their comments should file an original and 10 copies. Members of the general public who wish to express their interest by participating informally may do so by submitting one copy. All comments are given the same consideration, regardless of the number of copies submitted. All comments should be clearly marked General Docket No. 81-413, and will be available for public inspection during regular business hours in the Commission's Public Reference Room at its headquarters at 1919 M St., NW. Washington, D.C. All written comments should be sent to: Secretary, Federal Communications Commission, Washington, D.C., 20554. For general information on how to file comments, please contact the FCC Consumer Assistance and Small Business Division at (202) 632-7000. For further information on this proceeding, contact Dr. Joseph Mc Nulty at (301) 725-1585 or Dr. Michael Marcus at (202) 632-7040.

Initial Regulatory Flexibility Analysis

35. *Reason for Action.* The Commission believes that its rules and policies should be reviewed in the context of current social, technological and financial environments in which licensees and applicants operate, so that service to the public may be facilitated while the least regulatory cost is imposed. It is in this light that it is considering modification of its Part 15 and Part 90 rules.

36. *The objectives.* The Commission proposes to accommodate spread spectrum systems by reducing regulation to the maximum extent feasible. The commission believes that such action will lead to a more rapid development of spread spectrum technology in the civilian sector.

37. *Legal basis.* Action proposed herein is taken pursuant to Sections 4(i) and 303 of the Communications Act of 1934, as amended.

38. *Description, potential impact and number of small entities affected.* We do not believe that this NPRM will have a detrimental impact upon small entities. Indeed, insofar as our action contemplates spectrum reuse, it is likely that it will benefit both small and large entities which seek to enter the new markets that this action will create. Also, since the action is deregulatory in nature and no new, more restrictive regulations are being proposed, it should provide expanded business opportunities for all vendors and users of communications equipment, both small and large. Beyond this, we are unable to quantify the potential effects of this action on small entities. Comments are requested on this point by interested parties.

39. *Recording, record keeping and other compliance requirements.* The proposed modifications to Part 15 of the Rules would require only record generation by the manufacturer sufficient to meet type acceptance standards for the equipment. Modifications of the Part 90 rules require only a simple onetime notification to the area coordinator of the Police Radio Service of the district in which the license and equipment are to be used.

40. *Federal rules which overlap, duplicate or conflict with this rule.* The proposed rules were coordinated with the National Telecommunications and Information Administration. Their replies on this issue will be carefully considered to ensure no conflict will be encountered with Federal rules.

41. *Any significant alternatives minimizing impact on small entities and consistent with the stated objective.* None.

Other Procedural Matters

42. EX PARTE CONSIDERATIONS: For purposes of this non-restricted notice and comment rulemaking proceeding, members of the public are advised that ex parte contacts are permitted, from the time the

Commission adopts a notice of proposed rulemaking, until the time a public notice is issued stating that a substantive disposition of the matter is to be considered at a forthcoming meeting, or until a final order disposing of the matter is adopted by the Commission, whichever is earlier. In general, an ex parte presentation is any written or oral communication (other than formal written comments/pleadings and formal oral arguments) between a person outside the Commission and a Commissioner or a member of the Commission's staff which addresses the merits of the proceeding. Any person, who submits a written ex parte presentation, must present a copy of that presentation to the Commission's Secretary for inclusion in the public file. Any person, who makes an oral ex parte presentation addressing matters not fully covered in any previously-filed written comments for the proceeding, must present a written summary of that presentation to the Commission's Secretary for inclusion in the public file on the day that the presentation is made. A copy of the summary must also be presented to the Commission official who receives the oral presentation. The written presentation and summary, described above, must state the docket number of the proceeding to which they relate. For further information, see Section 1.1231 of the Commission's Rules, (47 C.F.R. 1.1231). A summary of the Commission's procedures governing ex parte presentations in informal rule making proceedings is available from the FCC Consumer Assistance and Small Business Division, Federal Communications Commission, Washington, D.C., 20554.

43. THE COMMISSION'S ACTION IN THIS PROCEEDING: Accordingly, the Commission adopts this Notice of Proposed Rulemaking (NPRM) under the authority contained in Sections 4(i) and 303 of the Communications Act of 1934, as amended.

FEDERAL COMMUNICATIONS COMMISSION
WILLIAM J. TRICARICO, *Secretary*

*Appendix A-may be seen in FCC Dockets Branch, 1919 M Street, N.W., Washington D.C. 20554.

APPENDIX B

PROPOSED CHANGES FOR FCC RULES AND REGULATIONS

PART 15 AND PART 90 CHANGES

1. Section 15.4, General Definitions, is amended by insertion of the following definitions:

(t) Spread Spectrum Systems. A spread spectrum system is an information bearing communications system in which: (1) information is conveyed by modulation of a carrier by some conventional means, (2) the bandwidth is deliberately widened by means of a spreading function over that which would be needed to transmit the information alone. (In some spread spectrum systems, a portion of the information being conveyed by the system may be contained in the spreading function.)

(u) Direct Sequence Systems. A direct sequence system is a spread spectrum system in which the incoming information is usually digitized, if it is not already in a binary format, and modulo 2 added to a higher speed code sequence. The combined information and code are then used to modulate a RF carrier. Since the high speed code sequence dominates the modulating function, it is the direct cause of the wide spreading of the transmitted signal.

(v) Frequency Hopping Systems. A frequency hopping system is a spread spectrum system in which the carrier is modulated with the coded information in a conventional manner causing a conventional spreading of the RF energy about the carrier frequency. However, the frequency of the carrier is not fixed but changes at fixed intervals under the direction of a pseudorandom coded sequence. The wide RF bandwidth needed by such a system is not required by a spreading of the RF energy about the carrier but rather to accommodate the range of frequencies to which the carrier frequency can hop.

(w) Time Hopping Systems. A time hopping system is a spread spectrum system in which the period and duty cycle of a pulsed RF carrier are varied in a pseudorandom manner under the control of a coded sequence. Time hopping is often used effectively with frequence hopping to form a hybrid time-division, multiple-access (TDMA) spread spectrum system.

(x) Pulsed FM Systems. A pulsed FM system is a spread spectrum system in which a RF carrier is modulated with a fixed period and fixed duty cycle sequence. At the beginning of each transmitted pulse, the carrier frequency is frequency modulated causing an additional spreading of the carrier. The pattern of the frequency modulation will depend upon the spreading function which is chosen. In some systems the spreading function is a linear FM chirp sweep, sweeping either up or down in frequency.

(y) Hybrid Spread Spectrum Systems. Hybrid spread spectrum systems are those which use combinations of two or more types of direct sequence, frequency hopping, time hopping and pulsed FM modulation in order to achieve their wide occupied bandwidths.

2. New Section 15.126 is added to read as follows:

Section 15.126 Operation of spread spectrum systems above 70 MHz.

Low power spread spectrum communication devices may be operated above 70 MHz subject to the following conditions:

(a) Low power spread spectrum communications systems are limited to operation on frequencies above 70 MHz. With the exception of the frequency bands listed in paragraph (c) of this section, the emission of RF energy on any frequency shall not exceed the field strengths in the following table:

Frequency (MHz)	Field Strength at 3m (uv/m) Frequency Hopping Time Hopping Pulsed FM Systems	Direct Sequence Systems
70 to 130	500	33
130 to 174	500-1500*	33
174 to 260	1500	33
260 to 470	1500-5000*	33
470 and above	5000**	33

* Linear interpolation

** These power limits apply on all frequencies above 470 MHz except in the 902-928 MHz, 2400-2483.5 MHz and 5725-5875 MHz frequency bands, where adequate power to perform the particular communications task will be allowed, providing that the device causes no harmful interference to other authorized users of these bands, and does not produce spurious or harmonic emissions outside the bands which are larger than the values listed in this Table. Power, in excess of that which is necessary for satisfactory operation, is not allowed.

Note: Spread spectrum systems using the 902-928 MHz, 2400-2500 MHz and 5725-5875 MHz bands should be cautioned that they are sharing these bands on a secondary basis with systems, supporting critical government requirements, that have been allocated the usage of these bands on a primary basis. Many of these systems are airborne radiolocation systems that emit a high EIRP which can cause harmful interference to other users. For further information about these systems, write to:

Director
Office of Plans and Policy
U.S. Department of CommerceP
National Telecommunications and Information Administration
Room 4096
Washington, D.C. 20230

Also, future investigations of the effect of spread spectrum interference to Government operations in the 902-928 MHz band may necessitate that the general limit on radiated power, as specified in the proposed rules, not be relaxed in this band and that the general limit apply.

(b) Hybrid spread spectrum systems, which use direct sequence modulation in combination with other types of modulation, are restricted to the emission limits given in paragraph (a) of this section for direct sequence systems.

(c) Emission of RF energy shall not fall in any of the bands listed below:

MHz			GHz		
73	to	75.4	10.6	to	10.7
108	to	118	15.35	to	15.4
121.4	to	121.6	19.3	to	19.4
156.7	to	156.9	23.6	to	24.0
240	to	285	31.3	to	31.8
328.6	to	335.4	51.4	to	54.25
404	to	406.2	58.2	to	59.0
608	to	614	64	to	65
960	to	1215	86	to	92
1400	to	1427	100	to	102
1535	to	1670	105	to	116
2690	to	2700	164	to	168
4200	to	4400	182	to	185
4990	to	5250	217	to	231

Note: A radiation level below 5 microvolts per meter at 3 meters will be considered to meet this requirement. For type acceptance of spread spectrum equipment whose emissions overlay these frequency bands, it must be demonstrated, by either measurements or analysis, that this emission limit is met.

(d) For frequency hopping systems, at least 30 hopping frequencies, separated by at least 20 kHz, shall be used, and the time of occupancy on any frequency shall not be greater than 1 second. For time hopping and pulsed FM spread spectrum devices, the duty cycle shall be less than 3.3%.

(e) Frequency hopping, time hopping and pulsed FM spread spectrum systems that operate on frequencies which fall within the television bands, shall either (1) be designed so that they do not have a total time of occupancy on any single television channel that is greater than one second out of every 30 seconds or (2) be provided with a switch or switches, that will enable the equipment to be operated on channels which are unused in that area. A television channel will be considered as used in an area, if the spread spectrum transmitter under consideration will produce a field, within the grade A contour of the television station using that channel, which is greater than 10 microvolts per meter. For type acceptance of frequency hopping, time hopping and pulsed FM spread spectrum transmitters, it must be demonstrated, by either measurements or analysis, that these conditions are met.

(f) The antenna of the spread spectrum device shall be permanently mounted on the enclosure containing the device. A microphone, keyboard, data entering or signal entering unit may be external to the device, providing that it is permanently connected to the enclosure with a cable not longer than 1.5 meters. If a power cable is used, it must not be longer than 3 meters and be permanently attached to the device. If the device is operated outdoors, it must not be mounted at a height greater than 10 meters above the ground. If it is operated indoors, it must be operated at a height which is not greater than 10 meters above the lowest level where a receiving unit is located.

(g) If the device is to be operated from public utility lines, the RF energy fed back into the power lines shall not exceed 250 microvolts at any frequency between 450 kHz and 30 MHz.

3. Section 90.7, Definitions, is amended by inserting the following definitions in the list of definitions which make up this Section.

* * * * *

Direct Sequence Systems. A direct sequence system is a spread spectrum system in which the incoming information is usually digitized, if it is not already in a digital format, and modulo 2 added to a higher speed code sequence. The combined information and code are then used to modulate a RF carrier. Since the high speed code sequence dominates the modulating function, it is the direct cause of the wide spreading of the transmitted signal.

* * * * *

Frequency Hopping Systems. A frequency hopping system is a spread spectrum system in which the carrier is modulated with the coded information in a conventional manner causing a conventional spreading of the RF energy about the carrier frequency. However, the frequency of the carrier is not fixed but changes at fixed intervals under the direction of a pseudorandom coded sequence. The wide RF bandwidth needed by such a system is not required by a spreading of the RF energy about the carrier but rather to accommodate the range of frequencies to which the carrier frequency can hop.

* * * * *

Spread Spectrum Systems. A spread spectrum system is an information bearing communications system in which: (1) information is conveyed by modulation of a carrier by some conventional means, (2) the bandwidth is deliberately widened by a spreading function over that which would be needed to transmit the information alone. (In some spread spectrum systems, a portion of the information being conveyed by the system is contained in the spreading function.)

4. Section 90.19 (g)(3), Police Radio Service, is amended as follows:

> (3) A licensee may use, without special authorization from the Commission, any mobile service frequency between 40 and 952 MHz listed in paragraph (d) of this section for communications in connection with physical surveillance, stakeouts, raids, and other such activities. Such use shall be on a secondary basis to operations of licensees regularly authorized on the assigned frequencies. The maximum power that may be used for such communications is 2 watts output. Other provisions of this part, including the requirements for station identification, shall apply. Spread spectrum transmitters may be operated on Public Safety frequencies between 37 and 952 MHz, providing that they are type accepted by the Commission under the provisions of Sections 2.803 and 90.203, and meet the following conditions:
>
> (i) Frequency hopping transmitters can be operated, with a maximum output power of 2 watts, on any mobile service frequency between 40 and 952 MHz listed in paragraph (d) of this section. If their hop rate is greater than 10 hops per second and 10 or more hopping frequencies are used, their maximum output power may be increased to 15 watts.
>
> (ii) Direct sequence spread spectrum transmitters may be operated in the 37.01-37.43, 39-40, 44.61-46.6, 154.6375-156.250 and 158.715-159.48 MHz bands with a maximum integrated output power of 10 mW per kHz.
>
> (iii) Use of spread spectrum transmitters under this section of the Rules is subject to approval by the local area coordinator of the Police Radio Service of the district in which the license and equipment are to be used.

5. Section 90.207, Types of emissions, is amended as follows:

(k) For stations in the Fire, Police and Power Radio Services utilizing digital voice modulation, in either the scrambled or unscrambled mode, F3Y emission will be authorized. Authorization to use F3Y emission is construed to include the use of F9Y emission subject to the provisions of Section 90.233. P2D emission is allowed for stations using direct sequence spread spectrum transmitters in the Police Radio Service.

6. Section 90.209, Bandwidth limitations, is amended by inserting new paragraph (h) as follows:

(h) Direct sequence spread spectrum transmitters which are operating in the 37.01-37.43, 39-40, 44.61-46.6, 154.6375-156.250 and 158.715-159.48 MHz bands will have any radiated emissions outside these bands attenuated by the following factors:

(1) On any frequency removed from the edge of the band by a displacement up to 40 kHz, the attenuation will be at least 50 dB.

(2) On any frequency removed from the edge of the band by a displacement greater than 40 kHz, the attenuation will be at least 80 dB.

International Telecommunications Union
Satellite Orbit
World Administrative Radio Conference

Fourth Notice of Inquiry adopted relating to preparation for ITU-WARC on use of geostationary-satellite orbit and planning of space services utilizing it.
—*World Administrative Radio Conference*
Gen. Docket No. 80-741

FCC 84-194

BEFORE THE
FEDERAL COMMUNICATIONS COMMISSION
WASHINGTON, D.C. 20554

In the Matter of An Inquiry Relating to Preparation for an International Telecommunication Union World Administrative Radio Conference on the Use of the Geostationary-Satellite Orbit and the Planning of the Space Services Utilizing It.	General Docket No. 80-741

FOURTH NOTICE OF INQUIRY

Adopted: May 10, 1984; Released: May 10, 1984

BY THE COMMISSION:

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I. Introduction

1. This *Notice* is the fourth in a series issued by the Commission to invite public comment on the policies and proposals being developed for a future international conference dealing with communication satellites in the geostationary-satellite orbit (GSO).[1] The formal title of the conference is the "World Administrative Radio Conference on the Use of the Geostationary--Satellite Orbit and the Planning of Space Services Utilizing It", frequently referred to as the Space WARC. It will meet in two sessions in 1985 and 1988 as an organ of the International Telecommunication Union (ITU), an international organization in which nearly all nations participate to coordinate telecommunications. The ITU short-form reference to the first session is WARC-ORB-85.

2. The purposes of the conference are very broad, including the examination and possible amendment of international arrangements by which all nations coordinate their use of the GSO for satellite radio systems. Notwithstanding the broad agenda of the Conference, the focus is expected to be confined to a few communication satellite frequency bands.[2]

3. This proceeding has been instituted to bring the private-sector into the process of distilling and sorting the relevant Conference issues, an objective that is augmented by our Space WARC Advisory Committee. The primary purpose of this *Fourth Notice* is to address the central WARC-ORB-85 issue deferred in the *Third Notice*—" . . . the appropriate mechanisms that give everyone assurance that their needs will be met as they arise."[3] Ancillary Conference matters are also discussed. We have also placed the Advisory Committee First Report in the docket file to

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[1] *See Third Notice of Inquiry* [in Docket No. 80-741], FCC 83-452 [public notice published at 48 Fed. Reg. 47069] (adopted 8 October 1983); *Second Notice of Inquiry,* FCC 82-214, 47 Fed. Reg. 24223 (adopted 13 May 1982); *Notice of Inquiry,* FCC 80-697, 45 Fed. Reg. 85126 (adopted 25 November 1980).

[2] *See Second Notice, supra,* at 13.

[3] *Third Notice, supra,* at 15.

obtain any additional comment on their Report. After a review of the responses to this *Notice* and reflection on subsequent international events, we expect to issue our *First Report* containing FCC draft United States proposals for the WARC-ORB-85. These draft proposals will be based upon our findings concerning WARC-ORB-85 set forth in this proceeding and coordination with the Department of Commerce's National Telecommunications and Information Administration (NTIA).[4]

II. Background

4. Preparations for the WARC-ORB-85 are occurring within a broad range of international and domestic forums and events. The following are some of the more important. Since the adoption of the *Third Notice*, comments and reply comments to that notice were filed. The Space WARC Advisory Committee submitted its First Report. The first session of the World Administrative Radio Conference for the Planning of the HF Bands Allocated to the Broadcasting Service (WARC-HFBC-84) was convened and adopted a "Report to the Second Session of the Conference." Several Interim Working Parties (IWPs) of the International Radio Consultative Committee (CCIR) were convened and adopted reports relative to the WARC-ORB-85 Conference Preparatory Meeting (CPM). The United States has, together with other countries, prepared and submitted WARC-ORB-85 related contributions to both the IWP meetings and the CPM. In addition, the ITU's International Frequency Registration Board (IFRB) has begun its WARC-ORB-85 preparatory effort, and the United States has submitted a response to the Board's initial inquiry. These developments among others are important and relevant to this proceeding, and each is discussed below.

5. The previous notice in this series, the third, was issued "...to explicitly establish a few basic positions for ORB-85 to guide our further preparations and dialogue."[5] In that *Notice*, the Commission found that the WARC-ORB-85 agenda item dealing with the "situation prevailing" was an important part of finding a basis for common agreement on the extent of the difficulties that gave rise to the Conference. It also noted that a broad range of alternative arrangements must be considered by the Conference because of a parity that exists among WARC-ORB-85 agenda

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[4] This proceeding facilitates coordination with NTIA and the Department of State in the development of Conference proposals and policies. Our draft proposals will be transmitted to the Secretary of State for full consideration in determining the United States submissions, in accordance with Presidential directive. *See* Transfer of Telecommunications Functions, Exec. Order No. 12046, 43 Fed. Reg. 13349, at para. 5-201 (1978) as amended, 47 U.S.C. sec. 303 (Supp. III, 1979). Timely proposals for the Conference must be submitted to the ITU secretariat by 8 December 1984. *See* International Telecommunication Convention, Nairobi, 1982, at no. 355.

[5] *Third Notice, supra*, at 2.

items 2.2 and 2.5. Radio services other than the Fixed-Satellite or Broadcasting-Satellite Services in appropriate bands below 15 GHz, and the associated Broadcasting-Satellite feeder links above that limit, were found unsuitable for alternative arrangements. And lastly, one extreme outcome of the Conference, i.e., "a detailed *a priori* assignment plan contained in a treaty instrument for any communication satellite service other than broadcasting-satellite" was viewed as an unacceptable alternative.[6]

6. In response to the *Third Notice*, eleven parties filed comments, two filed late comments, and four filed reply comments. A list of these parties is contained in Appendix A. Generally, the parties supported these findings. Some elaborated on or emphasized specific points. Others offered technical methods that might be used within some potential alternative arrangement, or proffered caveats. All of these comments were useful and are addressed, to the extent applicable, in the discussion of substantive issues below.

7. After more than two years of labor, the Advisory Committee on Space WARC submitted its First Report. As noted by the Committee's chairman in his letter of submittal, "a substantial record of historical, scientific and engineering data was compiled, substantial review of related ITU activities was conducted, demand projections and technical projections of future capabilities were developed, and a substantial body of research and interpretative data was studied."[7] Many organizations and individuals donated substantial resources and a major effort was made to obtain a wide scope of non-governmental views. The value of the Committee to the Space WARC preparatory effort remains significant, and we have amended and extended its charter.[8] Material developed by the Advisory Committee was included to a significant extent in the United States Contributions to CCIR preparatory meetings for the WARC-ORB-85. It has also been utilized in the development of this *Notice*, and its recommendations will be fully considered in the subsequent development of U.S. positions for the Conference.

8. Each ITU organ is undertaking some activities that relate to WARC-ORB-85. These include the Consultative Committees, the IFRB, and the General Secretariat. Within the International Radio Consultative Committee (CCIR), the major event is the Conference Preparatory Meeting (CPM-ORB-85) schedule to convene 25 June 1984 for four weeks. Its product will be a report providing the technical and operational bases

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[6] *Id.* at 15.

[7] Letter from Stephen E. Doyle, Chairman, to Dr. Robert S. Powers, Chief Scientist, Federal Communications Commission (22 December 1983).

[8] *See Memorandum Opinion and Order* [in Gen. Docket No. 80-741], FCC 83-383 (adopted 10 August 1983).

for the Conference.[9] Some of the groups within the CCIR that specialize in communication satellite matters have met during the past six months to assist the CPM by assembling information relating to particular radio services.[10] The product of each of these groups was a report containing material for possible inclusion in the CPM report. The most significant of these meetings was that of IWP 4/1. The Fixed-Satellite Service is expected to be the focus of WARC-ORB-85. The IWP 4/1 meeting was attended by a relatively broad segment of the international community. Significant, comprehensive U.S. documents were submitted and favorably considered by the participants.[11]

9. On 10 January, the World Administrative Radio Conference for the Planning of HF Bands Allocated to the Broadcasting Service (WARC-HFBC-84) was convened for four weeks at Geneva. Like the Space WARC, it was the first session of a two session conference to deal with the ITU arrangements for the identification, harmonization and implementation of radio stations. (Ref. Part III. B, below.) The HF Conference also had its genesis at the WARC-79, growing out of a common developing country concern regarding the existing ITU arrangements.[12] However, the HFBC WARC dealt with a single radio service and set of bands in which the technical and operational parameters are relatively homogeneous. The session produced a Report to the Second Session of the Conference that contains technical criteria and planning principles and method. The provisional ITU arrangements proposed in that Report for adoption by the Second Session of the Conference in 1986 relies on two-levels of requirements identification and an iterative harmonization process.[13]

10. In February/March 1984, the United States submitted to the CCIR Secretariat at Geneva a set of contributions addressing Chapters 3-10, and 12 of the CPM-ORB-85 Report. *See, e.g.*, Appendices B and C to this *Notice*. These Chapters are intended to address succinctly and comprehensively the technical and operational bases of each major agenda item at

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[9] *See* CCIR Administrative Circular A.C./254 (22 August 1983).

[10] This includes the Interim Working Party (IWP) 2/2 meeting on 3-7 December at Geneva to consider Space Research and Radioastronomy matters; the 10/11-1 meeting on 24-27 January 1984 at Washington to consider the Broadcasting-Satellite Service; the IWP 8/7 meeting on 23-27 January 1984 at McLean, Virginia, to consider the Mobile-Satellite Service; and the IWP 4/1 meeting on 13-22 February 1984 at Geneva to consider the Fixed-Satellite and Inter-Satellite Services.

[11] *See, e.g.*, United States of America, Contribution Relating to Planning Methods, Report by the CCIR to the WARC-ORB-85, Doc. IWP 4/1/1110 (6 Feb 1984), including Corr. 1 (21 Feb 1984).

[12] *See* Resolution No. 508, the World Administrative Radio Conference (Geneva, 1979).

[13] *See* Report to the Second Session of the Conference, World Administrative Radio Conference for the Planning of the HF Bands Allocated to the Broadcasting Service, First Session, Geneva, 1984, at 76-84.

WARC-ORB-85. This material was thoroughly coordinated within the federal government with substantial assistance provided by the private-sector through the appropriate Department of State public advisory committee (the U.S. Organization for the CCIR). The submission is fully consonant with the *Third Notice*. The perspective embodied in those contributions will be an important component of the United States approach for the Conference.

11. Both Resolution 3 of WARC-79 and the WARC-ORB-85 agenda call for "the IFRB to prepare a report on the operation of the procedures of Articles 11 and 13 including information about difficulties which may be reported to the IFRB by administrations in gaining access to suitable orbital locations and frequencies . . . ." On 10 January 1984, the Board issued IFRB Circular-letter No. 567 requesting individual administrations to report any of these difficulties. The U.S. submitted a response indicating that:

> These arrangements have been used for many years by this Administration. During this period, no substantial difficulties have been experienced in meeting our satellite radiocommunications requirements and in gaining access to suitable orbital locations, frequencies, and areas of coverage.
>
> Our experience . . . has been favorable because of the flexibility of these procedures in accommodating needs as they incrementally arise. On those occasions when technical or operational difficulties involving other networks were identified, the affected parties were able to coordinate among themselves and successfully resolve those difficulties through cooperative efforts and through exchange of detailed information. Each administration was able to gain access to the geostationary-satellite orbit to meet its own communication requirements. All known requirements were accommodated in a mutually acceptable manner.[14]

III. Substantive Issues

12. In the *Third Notice* several substantive issues oriented around the WARC-ORB-85 agenda were addressed. With respect to Conference Agenda Item 2.1, it was found that " . . . the 'situation prevailing' should be construed broadly and be thoroughly examined by the Conference . . . ."[15] A number of factors relative to the situation prevailing were discussed. Subsequently, those filing comments strongly supported this approach, and many of the factors were included in the Advisory Committee Report and the U.S. contributions to the CPM-ORB-85. Much of the same material may form the basis for the United States proposals for the WARC-ORB-85, agenda item 2.1. The associated U.S. contribution to the CPM-ORB-85 is included as Appendix B to this *Notice*.

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[14] Letter from Director, Office of International Communications Policy, Department of State, to A. Berrada, Chairman, IFRB 27 April 1984. Attached as Appendix D to this *Notice*.

[15] *Third Notice, supra,* at 11.

A. Should We Further Narrow Our Focus on Radio Services and Bands?

13. In the *Third Notice*, the Commission found that "[o]nly the fixed-satellite and broadcasting-satellite services in appropriate bands below 15 GHz and the associated feeder-links above that limit should be considered for *any kind of alternative arrangements* at the WARC-ORB-85."[16] We also noted that a further narrowing appears appropriate, and comments on this matter were solicited.

14. Satellite Business Systems urged that only the 4/6 GHz bands be considered, and specifically that the 12/14 GHz bands be excluded from WARC-ORB-85 consideration for alternative arrangements.[17] Similarly, AT&T urged that the entire 7/8 GHz bands should be excluded.[18] The same general views were also expressed by the Space WARC Advisory Committee in its First Report. The National Academy of Sciences urged that the 2655-2690 MHz band, in which radio astronomy has a secondary allocation, be excluded.[19] Satellite Television Corporation recommended that the Broadcasting-Satellite Service bands 670-720 MHz, 2500-2690 MHz and "bands that may be allocated to the BSS (Sound)" be excluded.[20]

15. In addition to the above bands, the United States at the recent IWP 4/1 meeting introduced a document noting the considerable difficulties associated with Fixed-Satellite use of some segments of the so-called 4/6 GHz extension bands.[21] These frequency bands include 3400-3700 MHz, 4500-4800 MHz, 5725-5850 MHz, 5850-5925 MHz, and 6425-7075 MHz. The Interdepartment Radio Advisory Committee's (IRAC) specialized preparatory committee for Space WARC (Ad-hoc 178) has also expressed similar concerns for these bands.

16. Except for the 6425-7075 MHz band, each of these extended bands is used to support important government terrestrial requirements. Technical and operational factors for sharing with these terrestrial services would severely constrain the use of these bands for the Fixed-Satellite Service (FSS).[22] The 6425-7075 MHz band is used to support a broad range of non-government requirements, including local television transmission (6425-6525 MHz), private operational fixed (6525-6875 MHz), and television auxiliary broadcasting (6875-7075 MHz). In the United States, these terrestrial services have extensive operations, in many cases at unspeci-

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[16] *Id.* at 13.

[17] *See* Comments of Satellite Business Systems (SBS) at 6; Reply Comments of SBS at 2.

[18] *See* Comments of the American Telephone and Telegraph Company (AT&T) at 4.

[19] *See* Comments of the National Academy of Sciences (NAS) at 5-7.

[20] Satellite Television Corporation (STC) Comments at 2.

[21] *See* United States of America, Contribution to Annex 5 of CPM Report, CCIR Interim Working Party 4/1, Geneva, February 1984, Doc No. IWP 4/1-1111 (rev. 2).

[22] *Ibid.*

fied locations. There are no antenna pointing restrictions toward the GSO. New regulations and coordination procedures, which would be difficult to devise, would be needed to avoid unacceptable interference.

17. The radio spectrum between 10.7 and 14.5 GHz, generally referred to as the 11/14 or 12/14 GHz bands, is a very complex mix of different radio service allocations and restrictions in the various regions of the world.[23] For region 2 (the Western Hemisphere), there are 10.7-12.2 GHz downlinks and 12.7-13.25 GHz and 14.0-14.5 GHz uplinks for the Fixed-Satellite Service (FSS). FSS use of the 11.7-12.2 GHz band is limited to national and sub-regional systems. Further, in the United States, the bands 10.7-11.7 GHz and 12.75-13.25 GHz are limited to intercontinental systems. Different allocations and restrictions exist for Regions 1 and 3 (i.e., outside the Western Hemisphere). Region 1 has both uplink and downlink allocations in the 10.7-11.7 GHz and 12.5-12.75 GHz bands, with the 10.7-11.7 GHz uplink allocation limited to feeder links to broadcasting-satellites. Region 3 has a downlink allocation at 12.2-12.75 GHz with the 12.2-12.5 GHz band limited to national and sub-regional systems. There are no FSS allocations in the 11.7-12.2 GHz band in Regions 1 and 3, but the 12.75-13.25 GHz and 14.0-14.5 GHz bands are allocated to uplinks. The complexity of these allocations in the 10.7-14.5 GHz range would create substantial difficulties in the application of any alternative arrangements.

18. In an attempt to assess comprehensively this entire matter relating to which services and bands might be considered for alternative arrangements, the United States recently submitted a CPM-ORB-85 contribution. It is included as Appendix C to this *Notice*. In the submission, six major technical and operational factors are described as bearing on this matter. These include: allocation status, operational status, specialized user community, technology status, operational characteristics, and GSO utilization intensity. These factors are applied to the entire range of services and bands. The conclusion for all services other than Fixed-Satellite is clear: the existing arrangements are satisfactory, and alternative arrangements seem unnecessary. Essentially the same conclusion is reached in the Space WARC Advisory Committee Report. For the Fixed-Satellite Service, the U.S. submission to the CPM-ORB-85 also concludes that a number of important features that are found in the existing arrangements would be required in any acceptable alternative arrangement.

19. We believe the factors and approach taken in the U.S. contribution set forth in Appendix C is a pragmatic means of reaching a decision as to the services and bands suitable for alternative ITU arrangements. Based on those technical and operational factors, the comments filed in response

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[23] *See* Table of Frequency Allocations, Art. 8, Radio Regulations, Geneva, 1979; Table of Frequency Allocations, sec. 2.106, FCC Rules and Regulations, 47 C.F.R. § 2.106 (1982).

to the *Third Notice*, the First Report of the Space WARC Advisory Committee, and the other materials associated with the U.S. WARC-ORB-85 preparatory process, it is clear that only the Fixed-Satellite Service bands at 3700-4200 MHz and 5925-6425 Mhz, and perhaps at 11-12/14 Ghz, may be appropriate for the consideration of alternative ITU arrangements. We thus further narrow our finding in this matter. In this regard, we do share the concerns of SBS and the Advisory Committee regarding the impact of alternative arrangements on the development of technological and operational innovation at 11-12/14 GHz. In addition, as discussed in para. 17 above, the very complex mixture of allocations and restrictions in these bands, that vary among the different regions of the world, would seem to require the use of the existing ITU arrangements.

B. *What Framework for a Dialogue on Alternative ITU Arrangements?*

20. The basic goal of the Space WARC is "to guarantee in practice for all countries equitable access to the geostationary-satellite orbit and the frequency bands allocated to space services."[24] However, equity is intrinsically an abstract concept that can only be achieved on a case-by-case basis. Its pursuit necessarily must rely on an international system of cooperation that in the *Third Notice* we characterized as the appropriate mechanisms that give everyone assurance that their needs will be met as they arise. It is this system of cooperation that is the central WARC-ORB-85 issue and that is conceptually described and substantively explored below. We request comment on the merits of this approach in the pursuit of equitable access.

21. Because WARC-ORB-85 is a conference that is broadly exploratory in nature, the ensuing dialogue among nations is best served by following a conceptual framework for the subject matter of the Conference that all parties can accept. Such a framework should ideally allow the Conference participants great freedom of options and choice, and not polarize or skew the discussions. Additionally it should fully portray the complex and difficult factors that must be balanced.

22. Toward this end, we suggest the consistent use of the terminology "ITU arrangements for the identification, harmonization and implementation of satellite systems" (short form: "ITU arrangements") to describe the process by which nations obtain recognition and protection of satellite networks. This terminology translates well and describes in a meaningful way the subject under consideration. The Convention, Radio Regulations, and Recommendations of the CCIR and other related agreements/procedures constitute the "existing arrangements." These consist of: Articles 11, 13-15, and the associated Appendices of the Radio Regula-

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[24] Resolution No. 3, The World Administrative Radio Conference (Geneva, 1979).

tions, Resolution No. 33 of the WARC-79, and the Final Acts of RARC-SAT-83.

23. All arrangements for promoting orderly and equitable access and use of the GSO invariably proceed through three necessary phases. See Table A. The precise means of accomplishing the required work may differ, but the general process is always necessary. First, proposed satellite networks are identified and announced by administrations in some agreed fashion. Second, harmonization occurs through the application of threshold criteria for identifying potential interference among networks, followed by a process of resolving any incompatibilities discovered. Lastly, near the time a satellite network is brought into use, the network assignment is notified to the IFRB. The Board's confirmation or verification that the assignment conforms to all of the applicable provisions of the Convention and Radio Regulations and provides the basis for network recognition and protection.

TABLE A

Elements of ITU Arrangements For Identification, Harmonization, and Implementation of Proposed Satellite Systems

Phase	Elements
IDENTIFICATION OF PROPOSED USE	• How Accomplished
	• When
	• Implementation Time Period
	• Information Provided
	• Participants
HARMONIZATION*	• How Accomplished
	• When
	• Threshold Criteria
	• Criteria For Harmonization
	• Participants
	• Permitted Amendment
IMPLEMENTATION	• How Accomplished
	• Time Period Effective
	• Participants
	• Permitted Amendment

Note: *The harmonization phase would vary under some options, depending on whether general or specific information was furnished during the first phase. Reference figure 2.

24. Each of these phases is comprised of several major elements that are also listed in Table A. In some cases, there are several options for each element. These are discussed in sub-part C, below. It is obvious that by selecting any particular combination of options, a rather large array of different ITU arrangements is possible.

25. During the past few years, there has been an attempt in both international and domestic forums to construct complete composite sets of alternative arrangements. In addition to the existing ITU arrangements, the IWP 4/1 has described and evaluated five "planning methods." By varying the constituent processes, as many as thirteen different methods have been described and/or evaluated in materials such as the Report of CCIR IWP4/1, the First Report of the Space WARC Advisory Committee and Appendix E to the *Second Notice*. All of this work has been useful, and from it a common underlying framework can be extracted. The general composition of this framework is shown in Table A, and portrayed in greater detail below. This framework is now guiding our domestic preparations and international dialogue. *See, e.g.*, Appendices B and C to this *Notice.*

Part C. What Changes Might Be Acceptable As Elements of an Alternative Arrangement?

26. The agenda of WARC-ORB-85 does not expressly require the session to devise a particular kind of alternative arrangement for any satellite service. However, if this matter is not decided, the constituent elements are likely to be addressed in considerable detail under several Conference agenda items. We are therefore proceeding along the lines of the ITU arrangement framework, discussing a range of examples under each element, indicating some preliminary views. For each element, we are particularly interested in the views of commentors on the flexibility needed to provide existing and planned services. This includes the consequences, if any, of alternatives that might be necessary to assure equitable access by other Administrations in the future.

The Identification Phase

27. In the identification phase, proposed satellite networks must be identified and announced in some agreed fashion. The elements comprising this phase are depicted in Table B. One of the most basic of these elements is the mechanism for actually identifying and announcing networks. For most satellite services and bands, this has been done by relying on individual administrations to identify their future satellite networks, and to furnish descriptive information to the IFRB which in turn publishes the information in Special Sections annexed to the IFRB

Weekly Circulars.[25] Based on our experience, we believe this is the preferable means of identifying satellite requirements. The only exception to this general mechanism involves the Broadcasting-Satellite Service in the 12 GHz band and the associated feeder links. For this one service and band, the identification and publication occurred at an Administrative Radio Conference.[26] For Region 2, the identifications at RARC-SAT-83 were made without prejudice to the right of all administrations in that Region, under stated conditions, to notify satellites with other characteristics made possible by technological advances, so long as the substituted facilities provide no less protection than the Final Acts require.

TABLE B

Elements of Identification Phase

Element	Examples	Existing Arrangements	
		Arts. 11, 13	Art. 15, App 30
How Accomplished	• IFRB Publication	X	
	• Regional or Sub-regional ARC		X
	• World ARC		
	• Other		
When	• Periodically		X
	• As Requirements Arise	X	
Implementation Time Period	• Two to Five Years	X	
	• Fifteen Years		X
	• Other		
Information Provided	• General		
	• Specific	X	X
Participants	• Administrations	X	X
	• Other		

28. There are other means by which the identification phase could be accomplished. Identification of future networks could be done by administrations meeting in different institutional settings that vary both as to jurisdiction (world, regional, and sub-regional) and ITU forum (Administrative Conference, Consultative Committee, intersessional or other special group) or non-ITU multilateral body. Apart from the circumstances mentioned in para. 31, below, it is unlikely most administrations might

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[25] *See*, Article 11, nos. 1041-45, Radio Regulations, Geneva, 1979; Resolution No. 33, Final Acts of the World Administrative Radio Conference, Geneva, 1979.

[26] *See* Final Acts of the World Administrative Radio Conference for the Planning of the Broadcasting-Satellite Service in Frequency Bands 11.7-12.2 GHz (in Regions 2 and 3) and 11.7-12.5 (in Region 1), Geneva 1977 (WARC-SAT-77); Final Acts of the Regional Administrative Radio Conference for the Planning of the Broadcasting-Satellite Service in Region 2 (RARC-SAT-83).

want to delegate the identification function to some agent.[27] Some combination of one or more of these mechanisms is also possible. Similarly, the task of assembling and distributing this information could occur at such meetings or subsequently by a separate entity.

29. However, there are many compelling reasons for relying on the initiative of individual administrations to unilaterally identify and describe their required satellite networks on a case-by-case basis as they arise, using the IFRB to disseminate the information. Perhaps the foremost is that the technical and operational aspects of the design and use of communication facilities are complex, diverse, rapidly changing, and entwined with the different domestic policies of administrations. To gather representatives of every administration together at necessarily large meetings to identify the characteristics of their future networks leads inevitably to substantial difficulties such as high costs and the likely overstatement of requirements. It is difficult enough in the present, based on concrete information, to make decisions as to whether a satellite network is warranted and what characteristics is should possess. In the United States, the identification of private-sector network requirements is not initiated by the government, but reflects investment decisions made by the private-sector based on market analysis and opportunities. This is done to foster innovation and the benefits of competition. To the extent the government intervenes, it is to accommodate new services and more entrants, including other countries, or to promote technical or operational efficiencies. The information identifying the networks and their characteristics is then disseminated through the IFRB. In order for a multilateral process for this phase to be useful in this kind of environment, it must meet almost continuously. Thus, use of an Administrative Radio Conference for identification is generally unacceptable.

30. The Broadcasting-Satellite Service at 12 GHz and its associated feeder links represent a unique exception among satellite radio services and bands with respect to collective identification of future networks. Indeed, it has historically been only the Broadcasting Service and some worldwide Mobile Services for which large international conferences have ever been found marginally satisfactory to identify needs. This amenability results from the requirement that such stations deliver service directly to a very large user population at diverse locations. This has necessitated

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[27] However, it is possible in limited or specialized circumstances for this to occur. For example, an administration may sometimes be given proxy authority by another administration, or the IFRB may assume the role of trustee for several administrations. *See* Final Acts of the World Administrative Radio Conference for the Planning of the Broadcasting-Satellite Service in the Frequency Bands 11.7-12.2 GHz (in Regions 2 and 3) and 11.7-12.5 GHz (in Region 1), Geneva, 1977, art. 11, n. 4.

a substantial technical and operational homogeneity that for economic reasons has remained relatively stable over a long period of time.

31. We are not, however, unalterably opposed to the use of multilateral forums for the identification of satellite requirements. Indeed, the United States participates actively in a variety of multilateral facilities planning activities. The most active involve the North Atlantic, Pacific and Caribbean regions. For each there is a continuing planning proceeding, and for the North Atlantic, a multilateral consultative process.[28] In addition, the Joint CCITT/CCIR Plan Committees have for some years sought to identify intra and inter regional circuit requirements via satellite.[29] Intelsat engages in a similar identification process on a quarterly basis.[30] There are many examples of similar activity in other regions and within many administrations.[31] It should be emphasized, however, that this activity is aimed at describing transmission service requirements based on current and anticipated demands derived through long-standing forecasting methods.[32] These demands are then met through the use of satellite or terrestrial facilities designed and implemented at the time they are needed, taking into account the technological, operational and economic factors extant *at that time.*

32. There are other important elements of the identification phase. For example, the point in time at which identification is accomplished may also be significant. Under the existing ITU arrangements, identification of satellite networks largely occurs at the initiative of individual administrations, as needed. If the phase is accomplished at multilateral meetings,

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[28] *See Report and Order* [in Doc. 79-184] [Atlantic Facilities], 84 FCC2c 760 (1981); Documents of the 4th North Atlantic Consultative Working Group Meeting, Paris, 31 Jan - 2 Feb 1984; *Notice of Inquiry,* [in Doc. CC 81-343][Pacific Facilities], FCC 83-515, 95 ECC2d 1264 (8 Nov 1983); *Notice of Inquiry* [in Doc. CC 83-525][Caribbean Facilities], FCC 83-251, ________ FCC2d ________ 26 May 1983).

[29] *See* General Plan for the Development of the Interregional Telecommunication Network, 1980-1983-1987 (Paris, 1980); Supplement to the World Plan, 1982-1989 (1982); General Plan for the Development of the Regional Network in Africa, 1982-1986-1990 (Libreville, 1983); General Plan for the Development of the Regional Network in the Region of Europe and Mediterranean Basin, 1978-1981-1983-1985 (Santiago de Compostela, Espana, 1979); Supplement to the Europe and Mediterranean Basin Plan, 1980-1984-1986-(1988) (1982); General Plan for the Development of the Regional Latin American Network, 1980-1984-1988 (Buenos Aires, 1981); General Plan for the development of the Regional Asian and Oceanian Network, 1981-1984-1990 (Manila, 1982); Supplement 1 (N=1982) to the Asia and Oceania Plan (1983).

[30] *See,* e.g., Advisory Committee on Planning, Twenty-Fifth Report to the Board of Governors, Intelsat Doc. BG-57-5E (23 Nov 1983).

[31] *See,* e.g., Panaftel, ITU, Geneva 1983; Medarabtel, ITU, Geneva 1983; List of Projects on Master Plan for Development of Telecommunications, Annex, CCIR Doc. IWP4/1-1154 (20 Feb 1984).

[32] *See, e.g.,* General Network Planning, CCITT (1983); Economic and Technical Impact of Implementing a Regional Satellite Network, CCITT (1983).

however, the periodicity of the meetings becomes significant. The communication satellite environment, especially the Fixed-Satellite Service, is highly dynamic. If multilateral forums were to be used for identifying networks, they would necessarily have to meet very frequently, perhaps even quarterly as does Intelsat, for a service such as Fixed-Satellite.

33. The identification phase may also encompass different times of network establishment. The advance publication mechanism now used for most bands and services requires that an administration '. . . which intends to establish a satellite system shall . . . send to the IFRB, no earlier than five years and preferably not later than two years before the date of bringing into service each satellite network of the planned system, the information listed. . . ."[33] This can be envisioned as a "time window" for implementation identification that continually moves 2-5 years in advance of the present. Ref. Figure 1. The Plans developed for the Broadcasting-Satellite Service at 12 GHz typically enjoy a fixed ten year time period within which the identified networks are expected to be brought into use. There is obviously some flexibility here in setting the size of this window. The boundaries are dictated by a desire to give notice in sufficient time for the subsequent harmonization phase to occur, yet at the other extreme not allow hypothetical or speculative satellite networks to be identified. We solicit comment on the appropriate boundaries for the identification of any satellite requirement period in any alternative arrangement.

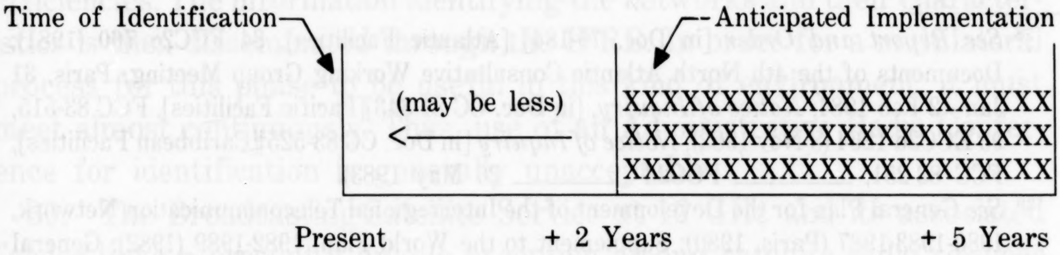

Figure 1

Depiction of the Present Implementation Window

34. The detail of data to be provided and the timing for the provision of such data are major questions to be considered in the identification phase. It may be possible to effect a two-level identification process that allows for less detailed information being identified, at the discretion of the administration. Ref. Figure 2. A similar approach was proposed by the first session of the WARC-HFBC-84. Advancement to the harmonization phase would be predicated on the filing of the additional information required. For example, the general transmission information of an

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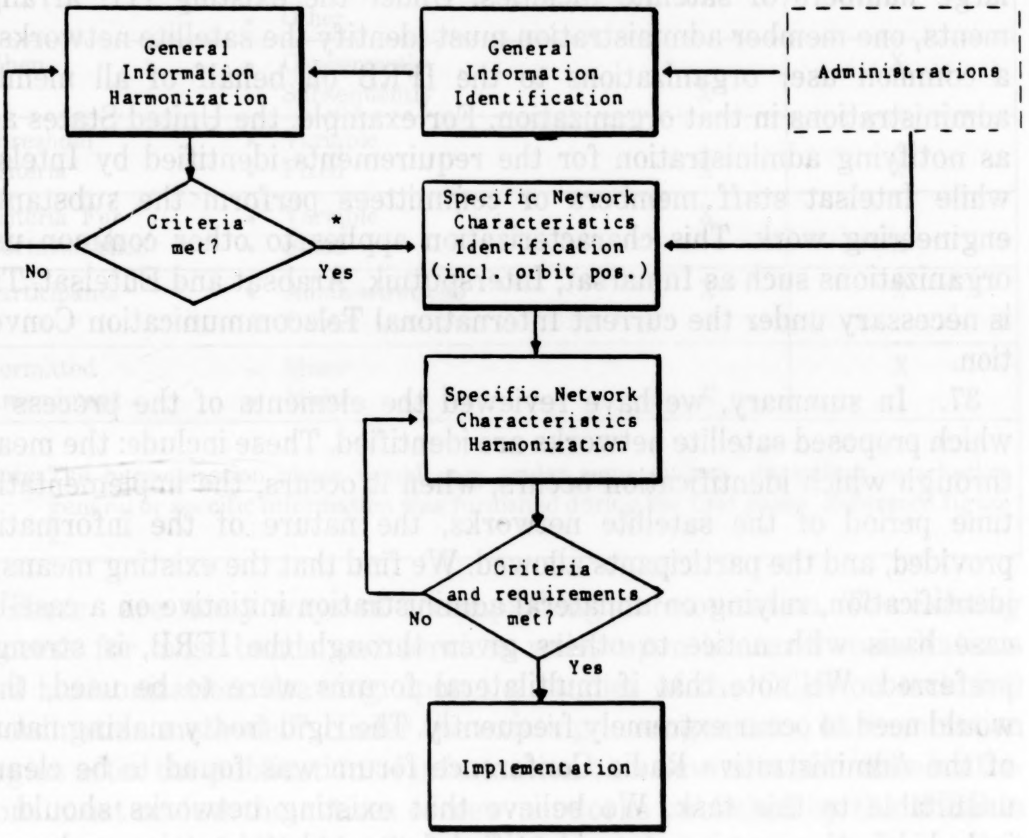
[33] No. 1042, Radio Regulations, Geneva, 1979.

administration identified in national or regional ten or twenty year telecommunication plans might be identified and perhaps even associated with some tentative satellite network characteristics. Such general or long-term information could also be used to indicate the approximate level of technology needed at the time to accommodate the overall in-orbit capacity desired by the the administration. Advancement to the harmonization phase would occur at such time as the satellite is about to be actually constructed and launched, and additional supplemental characteristics, including the date of bringing into use, were identified. Comment on the applicability of such an approach to satellite networks would be particularly desirable.


General Information Harmonization
General Information Identification
Administrations
Criteria met?
*
No
Yes
Specific Network Characteristics Identification (incl. orbit pos.)
Specific Network Characteristics Harmonization
Criteria and requirements met?
No
Yes
Implementation

Note: * The translation of general requirements into specific network characteristics would be initiated, as needed by the concerned administrations(s).

Figure 2

Example of a Two-Stage, Iterative Approach To Identification, Harmonization and Implementation

35. A very important element of the identification phase involves the nature of information provided on the proposed satellite network. It is important because the successful completion of the harmonization phase

may be delayed if insufficient information is provided. In other words, the information provided must be sufficiently detailed to allow a determination of the other affected radiocommunication systems that should be included in the harmonization process. For all satellite services and bands, this information normally includes such characteristics as the GSO arc within which service is to be provided, the geographical service area, frequency ranges, date of bringing into use, among others.[34] However, impractical and administratively burdensome details should be avoided.

36. The last major element of the identification phase involves the matter of standing, i.e., who will be allowed to participate directly in the ITU identification phase. The matter is relevant because common user organizations such as Intelsat, Inmarsat, and Intersputnik implement large numbers of satellite facilities. Under the existing ITU arrangements, one member administration must identify the satellite networks of a common user organizations to the IFRB on behalf of all member administrations in that organization. For example, the United States acts as notifying administration for the requirements identified by Intelsat, while Intelsat staff members or committees perform the substantial engineering work. This characterization applies to other common user organizations such as Inmarsat, Intersputnik, Arabsat and Eutelsat. This is necessary under the current International Telecommunication Convention.

37. In summary, we have reviewed the elements of the process by which proposed satellite networks are identified. These include: the means through which identification occurs, when it occurs, the implementation time period of the satellite networks, the nature of the information provided, and the participants allowed. We find that the existing means of identification, relying on unilateral administration initiative on a case-by-case basis with notice to others given through the IFRB, is strongly preferred. We note that if multilateral forums were to be used, they would need to occur extremely frequently. The rigid treaty making nature of the Administrative Radio Conference forum was found to be clearly unsuitable to this task. We believe that existing networks should be included in the requirements identified for an administration under any approach. We solicit comment on other elements of the process of identification that could be fashioned to meet the longer range concerns of some nations, particularly with respect to the description of future network requirements.

The Harmonization Phase

38. The second phase involves the harmonization of satellite networks. During this phase, the applicable threshold for identifying potential

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[34] *See* Appendices 4,30, Radio Regulations, Geneva, 1979.

interference among networks is applied, followed by a process of harmonizing any incompatibilities discovered. Reference Table C.

TABLE C

Elements of the Harmonization Phase

Element	Examples	Existing Arrangements	
		Arts. 11, 13	Art. 15, App 30
How Accomplished	• Bilateral	X	
	• Regional or Sub-regional ARC		X
	• World ARC		X
	• Other		
When	• Concurrently		X
	• Subsequently	X	
Threshold Criteria	• Variable		
	• Fixed	X	X
Criteria For Harmonization	• Variable	X	
	• Fixed		X
Participants	• Administrations	X	X
	• Other		
Permitted Amendment	• Minor		X
	• Major	X	

Note: The harmonization phase would vary under some options, depending on whether general or specific information was furnished during the first phase. Reference figure 2.

There are many ways of accomplishing harmonization. The existing process for most bands and services relies upon bilateral consultations and harmonization, drawing upon the studies of the CCIR on technical coordination methods.[35] Under the existing arrangements, harmonization begins after the publication of information on a new network. Administrations must review the notices of new networks published by the IFRB in the annex to their Weekly Circular. If any administration believes that unacceptable interference may occur to one of its satellite networks, that administration must send comments within four months to the administration identifying the new network, as well as the IFRB. The affected administrations are then required to attempt to resolve difficulties among themselves by exploring all possible means of accommodation. If no comments are filed, or the noted difficulties are successfully resolved, or after six months of unsuccessful resolution, the administration advancing the new network must then take another step. It must determine which existing networks operating in the same frequency band(s) are affected according to noise temperature calculations,[36] and send the potentially affected administrations specific information about the new satellite network. At this step, the affected parties are urged to resolve the matter among themselves, employing calculation methods and criteria generally based on relevant CCIR Recommendations agreed by the administrations concerned.[37] However, the IFRB may be requested to make certain findings of fact or to assist in resolving the difficulty. Under the existing arrangements for most services and bands, if the problem is not resolved, the newcomer cannot proceed to the implementation phase except by insistence and with a likely unfavorable finding by the Board.

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[35] *See* Art. 11, Radio Regulations, Geneva, 1979; CCIR Report 870.

39. We realize that some aspects or the existing arrangements may concern some nations. In practice, however, accommodations have always been made. We believe that satisfactory principles and criteria could be developed to give adequate assurance that administrations' telecommunication needs will be met as they arise.

40. For the Broadcasting-Satellite Service at 12 GHz, on the other hand, the process embodied in Article 15 and Appendix 30 and the Final Acts of RARC-SAT-83 achieves this phase at roughly the same time as identification. Initially this was done at an administrative radio conference, and subsequently through the arrangement modification process. As we noted above and in the *Third Notice,* this approach is only feasible for services of substantial long-term homogeneity, and nonetheless gives rise to significant adverse effects.

41. Multilateral approaches to harmonization suffer from many of that same deficiencies as with their application to identification. The most intensely used satellite services are also the most dynamic. Meetings would need to occur almost continuously. They would be costly and might involve many administrations who are not affected. Administrative Radio Conferences for this purpose appear totally unsuitable. On the other hand, small, less formal ad-hoc multilateral gatherings of administrations to harmonize affected networks could be useful. As we noted in para. 31, above, such an approach has already been extensively used in conjunction with the various facilities planning processes.

42. We now solicit comment on what we believe are two of the most critical WARC-ORB-85 issues. These include: (1) whether any new institutional mechanisms are needed to accomplish harmonization of satellite networks and when these mechanisms should be invoked, and (2) whether any additional principles and criteria for detecting and resolving conflicts among these networks should be defined. It can be assumed that any such principles and criteria *must* allow for the great technical and

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[36] *See Id.* at No. 1067, Appendix 29.

[37] *See Id.* at 1084.1.

operational diversity and dynamics associated with the Fixed-Satellite Service. Commenting parties might wish to reference, for example, the recent introduction by France of so-called "M3 harmonization" criteria[38], recent CCIR material on satellite repositioning[39], or combinations of the two proffered by Japan in the context of computer routines.[40]

43. We also solicit comment on the applicability of the Commission's means of harmonization for dozens of satellite networks.[41] Out experience has shown that were efficiency and capacity are maintained at a sufficiently high level, equitable access has been promoted. The high demand for fixed-satellite service within the United States has led to the development of technical criteria requiring adjacent satellites of different networks to be designed to operate at a predetermined maximum available orbital spacing. As the network population grows, an increasing number of networks will be required to use orbit locations that provide no more than this maximum intersatellite spacing, and they have to coordinate with each other at this spacing to the extent necessary. The maximum available spacing has been determined by a feasibility study of what is realizable under contemporary technology assumptions and is based on consensus among users. It is currently two degrees of arc for existing 12/14 GHz domestic fixed-satellites and future 4/6 GHz fixed-satellites. Slightly larger (i.e., 2.5 or 3 degrees) spacings are provided between existing 4/6 GHz satellites while in transition to 2 degrees in the future. These spacing criteria apply to co-coverage or adjacent coverage satellites. For non-overlapping coverage satellites, interleaving or co-location with other non-overlapping coverage satellites should be the design objective. It is subject to reevaluation with advances in technology, and thus provides one of the bases for an increasingly more resource-conservative orbit utilization methodology. The existing arrangements have allowed us to take advantage of such approaches. Any alternative arrangement must also allow for such continuing improvements of orbit efficiencies.

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[38] *See* France, A New Approach for WARC-ORB-85, CCIR Doc. No. IWP4/1/1151 (January 1984).

[39] *See, e.g.*, United Kingdom, Flexibility in the Positioning of Satellites, CCIR Doc. No. IWP4/1/1139 (January 1984); Canada Satellite Relocation, CCIR Doc. No. IWP4/1/1146 (27 January 1984).

[40] *See*, Japan, Determination of Orbital Positions Taking Into Account the Frequency Assignment of Individual Satellite Network, CCIR Doc. No. IWPA/1/1132 (28 Dec 1984); Japan, Enhanced Function of Orbit-II Program, CCIR Doc. No. IWP4/1/1131 (28 Dec 1984); Japan, Automated Frequency Coordination Among Multiple Satellite Networks - CAP-N Program, CCIR Doc. No. IWF4/1/1130 (28 Dec 1984).

[41] *See Report and Order* [in CC Doc. No. 81-704], FCC 83-184, ______ FCC2d ______ (16 Aug 1983).

44. It would also be useful for parties to comment on whether networks enjoying particular technical or operational characteristics should as a matter of principle enjoy any advantages in the harmonization process. Such principles might concern, for example, global connectivity requirements, a country's first network, or geographical situation factors.[42]

45. Commenting parties might also wish to address the efficacy of an iterative harmonization phase that could be associated with a two-level identification phase discussed above in para. 35. Reference Figure 2. If an administration elects to furnish non-specific information concerning its satellite network requirements in the identification phase, some degree of harmonization could be accomplished prior to that administration furnishing more specific detail.

46. In addition to the other harmonization phase issues raised above, options also exist with respect to the ability of international organizations to deal directly with administrations during the pendency of the phase. This procedural question of standing before the ITU is similar to that raised for the identification phase in para. 36, above. However, there are some differences. For example, Intelsat has long been directly involved in this process, dealing with administrations in attempts to achieve harmonization. The United States has only provided a conduit and its name for the official ITU record.

47. A significant procedural issue exists regarding post-harmonization phase amendments. What degree of departure from the identified and harmonized network characteristics should be allowed without requiring the administration to repeat one or both of those phases? Comments on this matter would be useful.

The Implementation Phase

48. The third and last phase occurs before a satellite facility is brought into use, and provides the basis for network recognition and protection. Reference Table D. Examination by a competent technical body to determine conformity with the arrangements is usually a necessary part of this phase. For the past three decades, this has occurred under all approaches by notification to the IFRB.[43] The Board examines the notification and if it is found to conform with the Convention and the applicable arrangement, all administrations are notified and the information is entered in the Master Register with a favorable finding. If it is not found to conform, it may upon the insistence of the administration be

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[42] Such geographical factors might include: special latitude situations, dispersed territory situations, terrain obstruction situations, etc. *See* United States of America, Contribution Relating to Chapter Five, Report by the CCIR to the WARC-ORB-85, CCIR CPM-ORB-85 Doc. No. ________ (February 1984).

[43] *See* Arts. 13, 15, Radio Regulations, Geneva, 1979; Final Acts of RARC-SAT-83.

entered with an unfavorable finding. Procedural means exist for subsequently upgrading this finding based on the absence of actual operational interference.[44]

49. One element of this phase that gives rise to critical WARC-ORB-85 issues relate to the nature of the international recognition and protection afforded by completing this phase. These issues, like the two critical harmonization issues described in para. 42, above, lie at the heart of the concerns giving rise to the Conference. The existing arrangements for most services and bands give significant protection to a satellite network once this phase is completed, albeit qualified by Resolution No. 2 of the World Administrative Radio Conference, Geneva, 1979. This protection includes an expectation that other networks will not cause significant interference for the life of the network.

TABLE D

Elements of the Implementation Phase

Element	Examples	Existing Arrangements	
		Arts. 11, 13	Art. 15, App 30
How Accomplished	• IFRB Notification	X	
	• Other		
Time Period Effective	• Plan Life		X
	• Life of Network	X	
	• Until Access Requested		
	• Other		
Participants	• Administrations	X	X
	• Other		
Permitted Amendment	• Minor	X	X
	• Major		

50. Another element is the period of validity. The options that would be capable of accommodating the technical and operational diversity and dynamics of fixed-satellite networks in a manner acceptable to the United States result in less international protection for shorter periods of time. For example, a harmonization process that would *require* shifting frequency channels, orbital positions, and noise margins to accommodate newcomers necessarily implies a different degree and period of protection than now afforded. Such changes are not significantly different than those already domestically effected by the Commission, as discussed in para. 40, above. However, such protection can only be afforded to actual systems under the International Telecommunication Convention. This was

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[44] *See Id.* at nos. 1566-68.

noted in the *Third Notice* and supported by the Advisory Committee. Comments on these critical issues are requested.

51. As with the harmonization process, there are similar questions concerning standing of parties before the ITU and the kind of permitted amendments after the pahse has been completed. Once the implementation phase has been completed, however, significant changes in basic network characteristics would necessarily require the administration to re-enter the harmonization phase. However, the range of permitted amendments should be sufficiently large to accommodate the technical evolution and growth normally expected in an operational satellite network.

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52. Many issues and questions are raised in this *Notice*. The most critical, and central issue to the Space WARC, is what kind of alternative ITU arrangements can be devised that would continue to allow U.S. objectives to be met, while also eliminating any perceptions that those arrangements are inequitable in practice, i.e., "first-come, first-served." The pursuit of equitable access in practice must rely on an international system of cooperation that we characterized as "the appropriate mechanisms that give everyone assurance that their needs will be met as they arise." The central questions that must be faced within this system of cooperation are reiterated below.

(1) What should be the nature of the international protection afforded upon completion of the implementation phase, including the time period such protection is effective?

(2) What additional principles and criteria should be considered during the harmonization phase for detecting and resolving conflicts among satellite networks?

(3) Whether any new institutional mechanisms should be used to accomplish harmonization of satellite networks and when should those mechanisms be invoked?

Comment from all affected parties is especially sought on this issue and these questions.

IV. Ancillary WARC-ORB-85 Issues

53. One particular topic that has only recently come to attention is the question of removing inactive satellites from the GSO to reduce the potential of in-orbit collisions over the long-term.[45] The Space WARC Advisory Committee First Report acknowledges this potential concern, and one domestic satellite operator has in fact boosted its earliest satellite from the GSO into a slightly higher orbit before permanently retiring it

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[45] *See* Report of IWP4/1 to the CCIR/CPM for WARC-ORB-85, Having Regard to the Fixed-Satellite Service, CCIR CPM-ORB-85 Doc. No. ________ (February 1984).

from service. Comments and suggestions are requested as to whether this matter should be a topic of the United States Proposals to the WARC-ORB-85.

54. The bidirectional use of frequency bands has been raised by several parties in the course of this proceeding. Such bidirectional frequency use is not endorsed for satellite systems operating in this country because of the potential sharing problems with existing space and terrestrial operations. However, the theoretical capability of this technique to virtually double orbit capacity appears generally unchallenged.[46] Such a capability may become significant as the number of bands amenable for alternative ITU arrangements is reduced. In particular, if only the bands identified for alternative arrangements for the Fixed-Satellite Service are 4/6 GHz, it might be useful to demonstrate that the basic potential requirements of all administrations can be satisfied in this particular pair of bands, using bidirectional transmissions where necessary to satisfy unspecific long-term requirements. We request comments on possible United States proposals or positions on bidirectional use of satellite bands outside the United States.

55. Several parties addressed matters related to the Final Acts of RARC-SAT-83. Satellite Television Corporation indicated that "...it is essential that both the downlink and feederlink Plans, together with the Associated Provisions adopted at RARC-[SAT]-83 be incorporated into the ... Radio Regulations at [WARC]-ORB-85; ... and that any 'consideration' of the RARC-[SAT]-83 decisions ... should be purely ministerial. ...."[47] The American Telephone and Telegraph Company, however, disagrees with Recommendation No. Com 6/4 of RARC-SAT-83 concerning the need to urgently study possible limits on the e.i.r.p. for stations operating above 15 GHz in the Fixed and Mobile Services directed toward the geostationary-satellite orbit in Regions 1 and 3, and the adoption of such limits at WARC-ORB-85.[48] We note with respect to this Recommendation, the recent United States contribution to CCIR has concluded that "... interference situations will be rare ... [t]herefore, no orbital avoidance is necessary." We concur in this conclusion, and find the United States contribution fairly dispositive of the pointing restriction issue. On the matter of incorporation of the Final Acts of the RARC-SAT-83, we believe this should occur without substantial change.

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[46] *See* Impact of Implementation of Reserve Band Satellites, Systematics General Corp. Report to NASA, February 1984. A copy of this report has been placed in the docket file.

[47] Comments of Satellite Television Corporation (STC) at 3-4.

[48] Comments of AT&T at 7-8; Reply Comments at 7-8.

[49] Draft new Report, Fixed Service E.I.R.P. Limits for the Protection of the FCC Feeder Links Around 18 GHz, CCIR Doc. No. 9/73 (1984).

V. Administrative Matters

56. Pursuant to Sections 4(i), 303, and 404 of the Communications Act of 1934, as amended, this *Fourth Notice of Inquiry* is hereby ADOPTED.

57. Interested parties may file comments on or before 15 June 1984. This will allow us to consider the comments prior to the convening of the CPM-ORB-85 on 25 June at Geneva. Reply comments must be filed on or before 1 August 1984. Although Section 1.419 of the Commission Rules and Regulations requires that an original and five copies of all statements, briefs, or comments be filed in response to this *Notice*, ten additional copies would be useful.

58. Inquiries in this proceeding may be directed to Anthony M. Rutkowski, Office of Science and Technology - (202) 653-8102.

FEDERAL COMMUNICATIONS COMMISSION
WILLIAM J. TRICARCIO, *Secretary*

*Appendices-May be seen in FCC Dockets Branch, 1919 M Street, N.W., Washington, D.C. 20554.